86-704

No. 86_____

IN THE

Supreme Court of the United States

October Term, 1986

STATE OF MINNESOTA,

Petitioner,

vs.

ORVILLE BERNDT, JR.,

Respondent.

APPENDIX TO PETITION FOR A WRIT OF CERTIORARI TO THE MINNESOTA SUPREME COURT

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APPENDIX INDEX

APPENDIX

APPENDIX A

STATE OF MINNESOTA
IN SUPREME COURT

C2-84-1661

STATE OF MINNESOTA,

Respondent,

vs.

ORVILLE BERNDT, JR.,

Appellant.

ORDER

The court, having considered en banc the State's petition for rehearing as well as four motions of the State in connection therewith,

IT IS ORDERED:

1. The original opinion in this case filed March 21, 1986 is hereby withdrawn.

2. The attached opinion which is identical to the original with one exception replaces the original. That exception is:

(a) The last three complete sentences on page 7 of the original slip opinion which read:

> Appellant claimed he was unaware of his wife's life insurance policy furnished by the State of Minnesota where she was employed. He was not even a named beneficiary on this policy. Berndt was surprised to learn that the other policy would pay off a car loan.

are deleted and in their stead is inserted:

Appellant was not named beneficiary on his wife's life insurance policy furnished as an automatic benefit by the State of Minnesota where she was employed. Berndt was surprised to learn that the other policy would pay off the car loan.

3. In all other respects, the petition of the State for rehearing is denied.

4. The four motions of the State entitled "Motion for Clarification of Conditions of Release," "Motion for Oral Argument on Petition for Rehearing," "Motion to Order Trial Court to Deliver Exhibits," and "Motion to Accept Photo Reproductions of State's Exhibits" are each denied.

5. No attorney fees incurred by either party in connection with the petition for rehearing and/or the supportive motions are allowed.

Dated: August 29, 1986.

By the Court:
GLENN E. KELLEY
Associate Justice

STATE OF MINNESOTA
IN SUPREME COURT

Hennepin County — Kelley, J.

C2-84-1661

STATE OF MINNESOTA,

Respondent,

vs.

ORVILLE BERNDT, JR.,

Appellant.

Filed August 29, 1986. Wayne Tschimperle, Clerk of Appellate Courts.

SYLLABUS

State failed to meet its burden to establish the guilt of an accused, convicted of eight counts of first-degree murder, when the convictions rested on circumstantial evidence which was consistent with a rational hypothesis other than guilt.

Reversed.

Heard, considered and decided by the court en banc.

OPINION

Kelley, Justice.

Orville Berndt appeals from his conviction on eight counts of first degree murder arising out of the deaths of his wife, her two sons by a previous marriage, and the son of his wife and himself. All four perished in a fire in August 1981 at the family duplex home in Brooklyn Center. On appeal, Berndt claims that the evidence was insufficient to sustain the convictions.[1] We agree. Accordingly, we reverse.

On August 20, 1981, appellant Orville Berndt lived in a townhouse residence in Brooklyn Center with his wife, Brenda; their son, Corey, age 3-1/2; and Brenda's sons, Richard Gage, age 13; and Michael Gage, age 10. Early in the evening after work on August 20, Berndt and his wife went to consult with their automobile insurance agent to obtain insurance coverage on a recently acquired used car. After completing that business, the couple first visited two bars, and later ended up at the Earle Brown Bowl, ostensibly to celebrate the car purchase. They remained there, drinking beer

[1] In addition to raising the insufficiency of the evidence issue, appellant has alleged violation of discovery rules, an unconstitutional search, and deprivation of a fair trial. Our disposition makes it unnecessary to address those issues.

and visiting with others until shortly before 1 a.m., August 21. During the course of the evening, in addition to the beer, Berndt also imbibed two shots of tequila, and smoked some marijuana. Witnesses who observed the Berndts that night observed no arguments or altercations between them, and described everyone there as having a good time.

When the couple arrived home, appellant, who had not eaten an evening meal after work, fixed himself something to eat. Thereafter, he smoked a cigarette with Brenda, laid down on the couch, and eventually fell asleep while watching television. Brenda was apparently in the room with him. The three children were sleeping upstairs. Suddenly appellant was awakened, by whom or what he is not sure, but he saw flames by the dining room window. The house was extremely hot and full of smoke. Brenda appeared to be heading through the dining room toward the kitchen area.[2] Appellant was confused; he panicked, and then ran out the front door. Shortly afterwards, the house burst into flames.

As Berndt came out the door, his next-door neighbor heard him screaming for the fire department. The authorities were immediately called. While waiting for the fire fighters, appellant tried to douse the fire with a garden hose.

Police Officer Adams was the first official on the scene. At the time he arrived, the second story was not burning. Both Adams and appellant searched for a ladder to attempt to save the children on the second floor. The search proved fruitless.

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[2] Immediately after the fire, appellant appeared confused as to what action Brenda had taken. In general, however, in each version, he indicated Brenda was heading into the dining room while he panicked and ran from the house because of the heat and smoke.

When fire fighters eventually arrived,[3] appellant was extremely vocal, and voiced his indignation and ire at what he considered an exorbitant lapse of time before fire fighters responded to the alarm. He acted in a hysterical manner, shouting obscenities at the fire fighters and police. His actions so interfered with the fire fighters, they decided to remove him from the scene. Berndt then was transported in a police squad car to his sister's house in Maple Grove by Police Officer Adams.

Adams remained with appellant in Maple Grove until he was ordered by Brooklyn Center Fire Marshal Jerry Pedlar to bring Berndt to the Brooklyn Center Police Department for interrogation. Pedlar had been at the fire scene early. From his observation of the fire's unusual and rapid acceleration, he concluded it might have had an intentional origin. Pedlar ordered Officer Adams to treat Berndt as an arson suspect during the return ride to Brooklyn Center because appellant was the only surviving family member.

At approximately 6 a.m., Adams and appellant arrived at the Brooklyn Center Police Station. Immediately after arrival at the police station, Berndt spent approximately 45 minutes in private with a minister, Chaplain Bodin, who informed him of the deaths of members of his family and counseled him.

Thereafter, Pedlar, a Brooklyn Center Police Department detective, and two deputies from the Hennepin County Sheriff's office jointly questioned appellant. They informed him that they suspected he had intentionally set the fire because of the rapid spread of the fire and because he was the only family survivor. After being given the Miranda warning and

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[3] The time lapse between the alarm and the response of the fire fighters is in dispute—the evidence ranges from 5 minutes to a half hour.

after agreeing to talk, Berndt related the events of the previous evening leading up to his discovery of the fire and his escape from the burning house. Following this police interview, a blood sample was taken from appellant at North Memorial Medical Center. Medical testimony at the trial indicated that appellant's blood alcohol level at the time of the fire could have been as high as .12 or .13 percent.

At all times during the early morning hours of August 21, Berndt wore the clothing he had continuously worn since returning home from work the previous evening. At the fire scene, a neighbor woman, seeking to solace Berndt, hugged him. She detected no odor of gasoline on his person. Officer Adams was in close proximity to appellant during the drive in a closed police squad car from Brooklyn Center to Maple Grove and back, but he noted no odor of gasoline on Berndt or his clothing. Chaplain Bodin, who had counseled Berndt for approximately 45 minutes at the police station, detected no odor of gasoline on appellant or his clothing. None of the interrogating officers at the Brooklyn Center Police Department, who were investigating what they considered an incendiary fire, testified to the existence of a gasoline odor on appellant. Trained fire and arson investigators suspecting the use of a fire accelerant to commit arson undoubtedly would be very conscious of the existence of such odors. Hospital technicians who drew Berndt's blood to analyze his blood alcohol level must have been in close proximity with appellant. The state, however, offered no testimony from any hospital personnel on the existence of a gasoline odor on Berndt. Finally, experienced police and fire investigators did not confiscate appellant's clothing.

From August 21 to August 24, 1981, arson investigators collected 26 physical samples from the remains of the Berndt

townhouse. These included wood cuttings, pieces of carpeting, and vinyl tile. Investigators also videotaped and photographed areas inside the townhouse. Later these samples were analyzed by the use of gas chromatography. The state's analyst concluded that five of the samples indicated the presence of an accelerant—most probably gasoline.[4]

Other witnesses testified that to ignite a fire which would exhibit the burning characteristics of the Berndt fire would require the use of at least 5 gallons of gasoline. The state theorized these 5 gallons had been carefully poured throughout the townhouse, up the stairs and around the children's bedrooms, to insure a fatal conflagration. Had the gasoline been poured throughout the house in the manner hypothesized by the state, it is clear the pouring would have been just before ignition or otherwise its presence would have been obvious to Brenda through her senses of sight and smell. Of course, if she had been unconscious as the result of a fracture or concussion, such observation might have been impossible. However, notwithstanding the severe burning of her body, the

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[4] At the trial, and in post-trial proceedings, the completeness and validity of the tests performed by the state's expert analyst were matters of considerable dispute.

The state's hypothesis, based substantially on the testimony of the test results by its expert, was that the fire had been set by using gasoline as an accelerant. In corroboration of its theory, the state had other evidence that a fire exhibiting the characteristics of the Berndt fire could not have been accidentally ignited through faulty electrical connection, a smoldering cigarette, ignition of carpeting, etc. Appellant, to the contrary, presented testimony that the fire was a "flash back" fire. A flash back fire is created when a fresh supply of oxygen, such as a door opening, reignites a smoldering fire or a build-up of gases, and the resulting fire flashes back across a room. Because the state's case relies so heavily on the premise that a gasoline accelerant was employed, for the purpose of this opinion we examine the record to ascertain if any nexus exists between appellant and any gasoline.

Hennepin County medical examiner was able to determine that prior to the fire Brenda had not suffered any major type of injury prior to her fire death.[5]

Even if the state's theory is assumed correct, there is no explanation how someone like Berndt, who, after a day's work, has spent an evening drinking and smoking marijuana, and who had an estimated blood alcohol content at the time of the fire of .12 or .13 percent, could have carefully poured gasoline throughout the townhouse in the intricate pattern posited by the state without spilling some of it on his person or clothing. The odor of spilled gasoline on skin or clothing is not easily eliminated. Yet, no witness—lay, police, or fire fighter—smelled any gasoline odor at the fire scene. Nor did any witness that morning smell the odor of gasoline on Berndt outside the burning building, in the squad car, in the police interrogation room or, apparently, at the hospital.

Furthermore, the record is completely devoid of any testimony or other evidence that Berndt had acquired 5 gallons of gasoline. No showing exists that Berndt ever purchased gasoline by container, or that he ever possessed a gas can. No evidence was produced that any person residing in the townhouse project area was missing any gasoline nor any container.

Within a very short time after arriving at the fire scene, authorities suspected appellant had torched the home. Although police and fire officials essentially had exclusive control of the fire remains for at least four days after the fire, they found no containers which could have held the gasoline used as an accelerant, nor did they find siphoning equipment

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[5] Because of burns to her head and face, he could not positively rule out a blow to the face or head, but no fractures were ascertained nor any other evidence of trauma to the head observed.

to link Berndt to this fire. Notwithstanding the absence of such tools, the state, by pure speculation, theorized either that (1) appellant had stolen the gas from the caretaker's supplies, or (2) appellant had siphoned the gas from cars in the parking lot, or (3) the reason no gas can or siphoning equipment was found was that in all probability Berndt had thrown it into a garbage dumpster which had been unloaded the morning after the fire.

All three of those contentions were purely speculative with no factual basis. The caretaker testified that none of his gasoline was missing. There was complete absence of any evidence to substantiate the claim appellant had siphoned gas from parked cars. Though a dumpster had been unloaded the morning of the fire, absolutely no evidence existed that appellant had thrown anything into it. In sum, nothing in the evidence justifies an inference establishing a nexus between appellant and the gasoline—at least 5 gallons of it—used to accelerate the townhouse fire.

In a first-degree murder prosecution, the state has no burden of establishing a motive for the crime. Nonetheless, if the state can establish a credible motive, credibility is lent to the state's contention that the accused committed the crime. The state in this case sought to establish a motive by introducing evidence relating to Berndt's relationship with Brenda, in particular, his propensity to flirt and be promiscuous. Incidents in corroboration of this contention occurred long before the fire date. Moreover, appellant did not deny the incidents, but contended those problems had been resolved well before the fire. No evidence rebuts that assertion. Secondly, the state sought to raise a financial motive by introducing evidence of two insurance policies totaling $33,900 on Brenda's life. Appellant was not named beneficiary on his

wife's life insurance policy furnished as an automatic benefit by the State of Minnesota where she was employed. Berndt was surprised to learn that the other policy would pay off the car loan. A reading of the trial record leaves us with the firm impression that the state failed to establish a credible motive for causing Brenda's death.[6] No motive at all was established for the deaths of the children.

Absent any direct evidence connecting appellant with gasoline or any other kind of accelerant, it is clear that appellant's conviction was based solely on circumstantial evidence. We recognize that normally a jury is in the best position to evaluate the circumstantial evidence surrounding the crime and that the jury's verdict is entitled to due deference. *See State v. Daniels*, 380 N.W.2d 777 (Minn. 1986) and *State v. Anderson*, 379 N.W.2d 70, 75 (Minn. 1985). However, as we have previously stated:

> The circumstantial evidence in a criminal case is entitled to as much weight as any other kind of evidence so long as the circumstances proved are consistent with the hypothesis that the accused is guilty and inconsistent with any rational hypothesis except that of his guilt.

State v. Jacobson, 326 N.W.2d 663, 666 (Minn. 1982) (citing *State v. Morgan*, 290 Minn. 558, 561, 188 N.W.2d 917, 919 (1971); *State v. Kaster*, 211 Minn. 119, 121, 300 N.W. 897, 899 (1941)). *See also State v. Ngoc Van Vu*, 339 N.W.2d 892, 898 (Minn. 1983); *State v. Threinen*, 328 N.W.2d 154, 156

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[6] Admission of evidence of the kind and nature used to suggest a motive for the alleged killings is generally discretionary with the trial court. However, in this case arguably there may have been an abuse of discretion. A reading of the record leaves us with a firm impression that the jury's verdict may well have been tainted by such evidence. Jury members may have convicted Berndt because they were offended by his morals.

(Minn. 1983); *State v. Gibbons*, 305 N.W.2d 331, 336 (Minn. 1981); *State v. Swain*, 269 N.W.2d 707, 712 (Minn. 1978).

Except for the fact that appellant was physically present in his home when the fire started, there exist no other circumstances consistent with the state's hypothesis of guilt. To the contrary, substantially all of the circumstances are consistent with a rational hypothesis other than guilt. It is not rational to infer that, after a day's work and long hours of drinking and partying, with a blood alcohol content sufficient to make him legally under the influence of alcohol, appellant could slosh 5 gallons of gasoline around the townhouse without almost inevitably spilling some of the gas on himself or his clothing. Yet, no witness, most of whom were in close proximity to him that morning, detected a gasoline odor about his person or clothing, even though authorities almost immediately suspected that he was an arsonist.

Nevertheless, the state contends that the Berndt fire was started and accelerated by the use of gasoline. The bodies of three children had high levels of carbon monoxide—a fact that is inconsistent with the state's theory, but is consistent with the defense theory of a flashback fire. Likewise, the autopsy report on Brenda was more consistent with appellant's theory than with that of the state.

Upon discovery of the fire, appellant claims that he, in panic, rushed from the house. The state suggests the contention is irrational because appellant would have been injured had he left in that manner. Yet, there is evidence appellant had singed hair on the left side of his body, and that all the skin on the bottom of his feet turned brown and peeled off a few days after the fire.

The state's theory with respect to the alleged motive for killing Brenda appears to be without rational basis. Though

admitting that in the years before the fire there had been problems between himself and Brenda because of his alleged philandering, the evidence was unrebutted that those disagreements had been ironed out long preceding the fire. The uncontradicted evidence was that appellant loved the boys and enjoyed their company. There exists no consistency, in the light of that undisputed fact, with the state's claim that appellant spread gasoline at the door of the children's bedroom—including that of his own son.

The state's entire case was bottomed on mere speculation or upon hypothesized "facts" not in evidence. Notwithstanding the absence of even a scintilla of evidence from any lay or professional witness of any concussion, blow, or fracture to Brenda's head, the state urged the jury to speculate that Berndt and his wife had fought that evening, resulting in a blow to Brenda's head sufficient to render her unconscious.

The state produced evidence which, if credited by the jury, would sustain its contention that the townhouse fire had been ignited with the use of a gasoline accelerant. About all the state produced to show appellant was the culprit was suspicion unsupported by facts. Some circumstances proved were consistent with the state's claim of an intentional fire, but other circumstances proved were generally consistent with the rational hypothesis that the defendant was not guilty.

The state's burden was to prove the arson-murders beyond a reasonable doubt. Here, the state failed to meet that burden. The circumstantial evidence was not inconsistent with a rational hypothesis other than guilt.

Accordingly, the convictions are reversed.

APPENDIX B

STATE OF MINNESOTA
IN SUPREME COURT

Hennepin County — Kelley, J.

C2-84-1661

STATE OF MINNESOTA,

Respondent,

vs.

ORVILLE BERNDT, JR.,

Appellant.

Filed August 29, 1986. Wayne Tschimperle, Clerk of Appellate Courts.

SYLLABUS

State failed to meet its burden to establish the guilt of an accused, convicted of eight counts of first-degree murder, when the convictions rested on circumstantial evidence which was consistent with a rational hypothesis other than guilt.

Reversed.

Heard, considered and decided by the court en banc.

OPINION

Kelley, Justice.

Orville Berndt appeals from his convictions on eight counts of first degree murder arising out of the deaths of his wife, her two sons by a previous marriage, and the son of his wife and himself. All four perished in a fire in August 1981 at the family duplex home in Brooklyn Center. On appeal, Berndt

claims that the evidence was insufficient to sustain the convictions.[1] We agree. Accordingly, we reverse.

On August 20, 1981, appellant Orville Berndt lived in a townhouse residence in Brooklyn Center with his wife, Brenda; their son, Corey, age 3-1/2; and Brenda's sons, Richard Gage, age 13; and Michael Gage, age 10. Early in the evening after work on August 20, Berndt and his wife went to consult with their automobile insurance agent to obtain insurance coverage on a recently acquired used car. After completing that business, the couple first visited two bars, and later ended up at the Earle Brown Bowl, ostensibly to celebrate the car purchase. They remained there, drinking beer and visiting with others until shortly before 1 a.m., August 21. During the course of the evening, in addition to the beer, Berndt also imbibed two shots of tequila, and smoked some marijuana. Witnesses who observed the Berndts that night observed no arguments or altercations between them, and described everyone there as having a good time.

When the couple arrived home, appellant, who had not eaten an evening meal after work, fixed himself something to eat. Thereafter, he smoked a cigarette with Brenda, laid down on the couch, and eventually fell asleep while watching television. Brenda was apparently in the room with him. The three children were sleeping upstairs. Suddenly appellant was awakened, by whom or what he is not sure, but he saw flames by the dining room window. The house was extremely hot and full of smoke. Brenda appeared to be heading through the

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dining room toward the kitchen area.[2] Appellant was confused; he panicked, and then ran out the front door. Shortly afterwards, the house burst into flames.

As Berndt came out the door, his next-door neighbor heard him screaming for the fire department. The authorities were immediately called. While waiting for the fire fighters, appellant tried to douse the fire with a garden hose.

Police Officer Adams was the first official on the scene. At the time he arrived, the second story was not burning. Both Adams and appellant searched for a ladder to attempt to save the children on the second floor. The search proved fruitless.

When fire fighters eventually arrived,[3] appellant was extremely vocal, and voiced his indignation and ire at what he considered an exorbitant lapse of time before fire fighters responded to the alarm. He acted in a hysterical manner, shouting obscenities at the fire fighters and police. His actions so interfered with the fire fighters, they decided to remove him from the scene. Berndt then was transported in a police squad car to his sister's house in Maple Grove by Police Officer Adams.

Adams remained with appellant in Maple Grove until he was ordered by Brooklyn Center Fire Marshal Jerry Pedlar to bring Berndt to the Brooklyn Center Police Department for interrogation. Pedlar had been at the fire scene early. From his observation of the fire's unusual and rapid acceleration, he concluded it might have had an intentional origin.

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[2] Immediately after the fire, appellant appeared confused as to what action Brenda had taken. In general, however, in each version, he indicated Brenda was heading into the dining room while he panicked and ran from the house because of the heat and smoke.

[3] The time lapse between the alarm and the response of the fire fighters is in dispute—the evidence ranges from 5 minutes to a half hour.

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Thereafter, Pedlar, a Brooklyn Center Police Department detective, and two deputies from the Hennepin County Sheriff's office jointly questioned appellant. They informed him that they suspected he had intentionally set the fire because of the rapid spread of the fire and because he was the only family survivor. After being given the Miranda warning and after agreeing to talk, Berndt related the events of the previous evening leading up to his discovery of the fire and his escape from the burning house. Following this police interview, a blood sample was taken from appellant at North Memorial Medical Center. Medical testimony at the trial indicated that appellant's blood alcohol level at the time of the fire could have been as high as .12 or .13 percent.

At all times during the early morning hours of August 21, Berndt wore the clothing he had continuously worn since returning home from work the previous evening. At the fire scene, a neighbor woman, seeking to solace Berndt, hugged him. She detected no odor of gasoline on his person. Officer Adams was in close proximity to appellant during the drive in a closed police squad car from Brooklyn Center to Maple Grove and back, but he noted no odor of gasoline on Berndt or his clothing. Chaplain Bodin, who had counseled Berndt for approximately 45 minutes at the police station, detected no odor of gasoline on appellant or his clothing. None of the interrogating officers at the Brooklyn Center Police Depart-

ment, who were investigating what they considered an incendiary fire, testified to the existence of a gasoline odor on appellant. Trained fire and arson investigators suspecting the use of a fire accelerant to commit arson undoubtedly would be very conscious of the existence of such odors. Hospital technicians who drew Berndt's blood to analyze his blood alcohol level must have been in close proximity with appellant. The state, however, offered no testimony from any hospital personnel on the existence of a gasoline odor on Berndt. Finally, experienced police and fire investigators did not confiscate appellant's clothing.

From August 21 to August 24, 1981, arson investigators collected 26 physical samples from the remains of the Berndt townhouse. These included wood cuttings, pieces of carpeting, and vinyl tile. Investigators also videotaped and photographed areas inside the townhouse. Later these samples were analyzed by the use of gas chromatography. The state's analyst concluded that five of the samples indicated the presence of an accelerant—most probably gasoline.[4]

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[4] At the trial, and in post-trial proceedings, the completeness and validity of the tests performed by the state's expert analyst were matters of considerable dispute.

The state's hypothesis, based substantially on the testimony of the test results by its expert, was that the fire had been set by using gasoline as an accelerant. In corroboration of its theory, the state had other evidence that a fire exhibiting the characteristics of the Berndt fire could not have been accidentally ignited through faulty electrical connection, a smoldering cigarette, ignition of carpeting, etc. Appellant, to the contrary, presented testimony that the fire was a "flash back" fire. A flash back fire is created when a fresh supply of oxygen, such as a door opening, reignites a smoldering fire or a build-up of gases, and the resulting fire flashes back across a room. Because the state's case relies so heavily on the premise that a gasoline accelerant was employed, for the purpose of this opinion we examine the record to ascertain if any nexus exists between appellant and any gasoline.

Other witnesses testified that to ignite a fire which would exhibit the burning characteristics of the Berndt fire would require the use of at least 5 gallons of gasoline. The state theorized these 5 gallons had been carefully poured throughout the townhouse, up the stairs and around the children's bedrooms, to insure a fatal conflagration. Had the gasoline been poured throughout the house in the manner hypothesized by the state, it is clear the pouring would have been just before ignition or otherwise its presence would have been obvious to Brenda through her senses of sight and smell. Of course, if she had been unconscious as the result of a fracture or concussion, such observation might have been impossible. However, notwithstanding the severe burning of her body, the Hennepin County medical examiner was able to determine that prior to the fire Brenda had not suffered any major type of injury prior to her fire death.[5]

Even if the state's theory is assumed correct, there is no explanation how someone like Berndt, who, after a day's work, has spent an evening drinking and smoking marijuana, and who had an estimated blood alcohol content at the time of the fire of .12 or .13 percent, could have carefully poured gasoline throughout the townhouse in the intricate pattern posited by the state without spilling some of it on his person or clothing. The odor of spilled gasoline on skin or clothing is not easily eliminated. Yet, no witness—lay, police, or fire fighter—smelled any gasoline odor at the fire scene. Nor did any witness that morning smell the odor of gasoline on Berndt outside the burning building, in the squad car, in the police interrogation room or, apparently, at the hospital.

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[5] Because of burns to her head and face, he could not positively rule out a blow to the face or head, but no fractures were ascertained nor any other evidence of trauma to the head observed.

Furthermore, the record is completely devoid of any testimony or other evidence that Berndt had acquired 5 gallons of gasoline. No showing exists that Berndt ever purchased gasoline by container, or that he ever possessed a gas can. No evidence was produced that any person residing in the townhouse project area was missing any gasoline nor any container.

Within a very short time after arriving at the fire scene, authorities suspected appellant had torched the home. Although police and fire officials essentially had exclusive control of the fire remains for at least four days after the fire, they found no containers which could have held the gasoline used as an accelerant, nor did they find siphoning equipment to link Berndt to this fire. Notwithstanding the absence of such tools, the state, by pure speculation, theorized either that (1) appellant had stolen the gas from the caretaker's supplies, or (2) appellant had siphoned the gas from cars in the parking lot, or (3) the reason no gas can or siphoning equipment was found was that in all probability Berndt had thrown it into a garbage dumpster which had been unloaded the morning after the fire.

All three of those contentions were purely speculative with no factual basis. The caretaker testified that none of his gasoline was missing. There was complete absence of any evidence to substantiate the claim appellant had siphoned gas from parked cars. Though a dumpster had been unloaded the morning of the fire, absolutely no evidence existed that appellant had thrown anything into it. In sum, nothing in the evidence justifies an inference establishing a nexus between appellant and the gasoline—at least 5 gallons of it—used to accelerate the townhouse fire.

In a first-degree murder prosecution, the state has no burden of establishing a motive for the crime. Nonetheless, if

the state can establish a credible motive, credibility is lent to the state's contention that the accused committed the crime. The state in this case sought to establish a motive by introducing evidence relating to Berndt's relationship with Brenda, in particular, his propensity to flirt and be promiscuous. Incidents in corroboration of this contention occurred long before the fire date. Moreover, appellant did not deny the incidents, but contended those problems had been resolved well before the fire. No evidence rebuts that assertion. Secondly, the state sought to raise a financial motive by introducing evidence of two insurance policies totaling $33,900 on Brenda's life. Appellant claimed he was unaware of his wife's life insurance policy furnished by the State of Minnesota where she was employed. He was not even a named beneficiary on this policy. Berndt was surprised to learn that the other policy would pay off a car loan. A reading of the trial record leaves us with the firm impression that the state failed to establish a credible motive for causing Brenda's death.[6] No motive at all was established for the deaths of the children.

Absent any direct evidence connecting appellant with gasoline or any other kind of accelerant, it is clear that appellant's conviction was based solely on circumstantial evidence. We recognize that normally a jury is in the best position to evaluate the circumstantial evidence surrounding the crime and that the jury's verdict is entitled to due deference. *See State v. Daniels*, 380 N.W.2d 777 (Minn. 1986) and *State v.*

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[6] Admission of evidence of the kind and nature used to suggest a motive for the alleged killings is generally discretionary with the trial court. However, in this case arguably there may have been an abuse of discretion. A reading of the record leaves us with a firm impression that the jury's verdict may well have been tainted by such evidence. Jury members may have convicted Berndt because they were offended by his morals.

Anderson, 379 N.W.2d 70, 75 (Minn. 1985). However, as we have previously stated:

> The circumstantial evidence in a criminal case is entitled to as much weight as any other kind of evidence so long as the circumstances proved are consistent with the hypothesis that the accused is guilty and inconsistent with any rational hypothesis except that of his guilt.

State v. Jacobson, 326 N.W.2d 663, 666 (Minn. 1982) (citing *State v. Morgan*, 290 Minn. 558, 561, 188 N.W.2d 917, 919 (1971); *State v. Kaster*, 211 Minn. 119, 121, 300 N.W. 897, 899 (1941)). *See also State v. Ngoc Van Vu*, 339 N.W.2d 892, 898 (Minn. 1983); *State v. Threinen*, 328 N.W.2d 154, 156 (Minn. 1983); *State v. Gibbons*, 305 N.W.2d 331, 336 (Minn. 1981); *State v. Swain*, 269 N.W.2d 707, 712 (Minn. 1978).

Except for the fact that appellant was physically present in his home when the fire started, there exist no other circumstances consistent with the state's hypothesis of guilt. To the contrary, substantially all of the circumstances are consistent with a rational hypothesis other than guilt. It is not rational to infer that, after a day's work and long hours of drinking and partying, with a blood alcohol content sufficient to make him legally under the influence of alcohol, appellant could slosh 5 gallons of gasoline around the townhouse without almost inevitably spilling some of the gas on himself or his clothing. Yet, no witness, most of whom were in close proximity to him that morning, detected a gasoline odor about his person or clothing, even though authorities almost immediately suspected that he was an arsonist.

Nevertheless, the state contends that the Berndt fire was started and accelerated by the use of gasoline. The bodies of three children had high levels of carbon monoxide—a fact that is inconsistent with the state's theory, but is consistent

with the defense theory of a flashback fire. Likewise, the autopsy report on Brenda wa more consistent with appellant's theory than with that of the state.

Upon discovery of the fire, appellant claims that he, in panic, rushed from the house. The state suggests the contention is irrational because appellant would have been injured had he left in that manner. Yet, there is evidence appellant had singed hair on the left side of his body, and that all the skin on the bottom of his feet turned brown and peeled off a few days after the fire.

The state's theory with respect to the alleged motive for killing Brenda appears to be without rational basis. Though admitting that in the years before the fire there had been problems between himself and Brenda because of his alleged philandering, the evidence was unrebutted that those disagreements had been ironed out long preceding the fire. The uncontradicted evidence was that appellant loved the boys and enjoyed their company. There exists no consistency, in the light of that undisputed fact, with the state's claim that appellant spread gasoline at the door of the children's bedroom—including that of his own son.

The state's entire case was bottomed on mere speculation or upon hypothesized "facts" not in evidence. Notwithstanding the absence of even a scintilla of evidence from any lay or professional witness of any concussion, blow, or fracture to Brenda's head, the state urged the jury to speculate that Berndt and his wife had fought that evening, resulting in a blow to Brenda's head sufficient to render her unconscious.

The state produced evidence which, if credited by the jury, would sustain its contention that the townhouse fire had been ignited with the use of a gasoline accelerant. About all the state produced to show appellant was the culprit was sus-

picion unsupported by facts. Some circumstances proved were consistent with the state's claim of an intentional fire, but other circumstances proved were generally consistent with the rational hypothesis that the defendant was not guilty.

The state's burden was to prove the arson-murders beyond a reasonable doubt. Here, the state failed to meet that burden. The circumstantial evidence was not inconsistent with a rational hypothesis other than guilt.

Accordingly, the convictions are reversed.

APPENDIX C

State of Minnesota
County of Hennepin

District Court
Fourth Judicial District

D.C. File 80973-01

STATE OF MINNESOTA,

Plaintiff,

vs.

ORVILLE BERNDT, JR.,

Defendant.

ORDER AND MEMORANDUM

The above matter came before the undersigned sitting by special appointment as a District Court Judge for determination of post-trial motion brought on behalf of defendant requesting that the court grant a new trial or order judgment of acquittal pursuant to Minn. R. Crim. P. 26.04(1)(1). Said motion was continued from time to time for the purpose of taking testimony of defense expert Robert Davis and conducting the deposition of state expert Rick Tontarski. All necessary transcripts and memoranda were received by the court by July 24, 1984.

Daniel F. Byrne, Esq. appeared on behalf of the State of Minnesota; Craig Cascarano, Esq. appeared on behalf of the defendant.

Based upon the files, records, depositions, testimony, and written memoranda of both counsel,

IT IS ORDERED:

1. That defendant's motion for a new trial or for judgment of acquittal is denied in its entirety.

2. That the attached memorandum shall be construed as part of this order.

DATED: August 1, 1984

By the Court
DORIS OHLSEN HUSPENI
Acting District Court Judge by
Special Appointment

MEMORANDUM

On November 12, 1983, Orville Berndt, Jr. was convicted after a jury trial on eight counts of first degree murder involving the death of his wife, their son, and his wife's two children by a prior marriage.

The trial lasted several weeks. The State's theory was that Berndt poured gasoline throughout the house, ignited the gasoline, and then went outside. The State claimed that its theory was supported by Orville Berndt's unusual behavior at the time of the fire, by burn patterns in the house, by the rapidity of the fire, and by expert testimony that traces of gasoline were found in some physical samples taken from the fire scene. Defendant's motion relates to this last evidence.

At trial the State's expert, Rick Tontarski, testified extensively that gasoline was found in 5 of 26 samples taken from the fire scene. He reached this conclusion by analyzing all 26 samples in a gas chromatograph which produces a graphic representation of a sample called a chromatogram. By matching the sample chromatograms to standard gasoline chromatograms, Tontarski concluded that gasoline was present in 5 samples. These results were disputed by the defense expert,

Robert Davis. Davis indicated that the 5 so-called positive chromatograms in fact did not contain gasoline.

Both Tontarski and Davis testified extensively at trial. Both were extensively cross-examined. On the last day of trial, Tontarski was recalled for rebuttal testimony. At that time, a State's proposed exhibit (not received) was discovered to be a chromatogram which had not been made available to defendant through discovery. Tontarski had, in fact, made more than one chromatogram for each of the 5 samples in which he had identified gasoline. The additional chromatograms were in his Maryland laboratory. Prior to trial, he had turned over to the defense one chromatogram for each positive sample. Nothing relating to the additional chromatograms was admitted into evidence at trial. Pursuant to a post-trial motion, all positive chromatograms were produced for the defense.

Defendant's motion raises two issues:

1. Whether there was a Rule 9 violation and, if so, would it mandate a new trial.

2. Whether the additional chromatograms are newly discovered evidence that requires a new trial.

1. Reports of examinations and tests are discoverable by the defendant without court order:

> The prosecuting attorney shall disclose and permit defense counsel to inspect and reproduce any results or reports of . . . scientific tests, experiments or comparisons made with the particular case.

Minn. R. Crim. P. 9.01(1)(4). Throughout the discovery stage of this case, the defense requested Tontarski to produce only chromatograms regarding the five positive samples. Discovery of chromatograms taken from the 21 negative samples has never been an issue and is not an issue in this motion. The defense claims that it was unaware that more than one chro-

matogram was made for each positive sample. Tontarski insists that he informed the defense at some point during discovery that more than one chromatogram existed for each positive sample. Prior to trial, Tontarski turned over to the defense the one chromatogram for each positive sample that he relied upon for making his identification of gasoline. The other positive chromatograms, while of assistance to Tontarski and while reflecting the presence of gasoline, were merely preparatory to insure the right sample volume, select the right amplification setting, or determine the need for clean-up procedures.

Discovery requests between the defense and prosecution were not in writing. Therefore it is difficult to determine whether the discovery request necessarily encompassed all chromatograms showing evidence of gasoline, or only those 5 chromatograms that Tontarski relied on for his opinion. In any event, there was no bad faith on Tontarski's part in not turning over all the chromatograms.

Rule 9 itself is not helpful in determining the extent of Tontarski's obligation to produce, but the principles underlying that rule lend guidance. Discovery is intended to give:

> both parties the maximum possible amount of information with which to prepare their cases and thereby reduces the possibility of surprise at trial.

State v. Schwantes, 314 N.W.2d 243, 245 (1982). In *Schwantes*, the court reversed a conviction because the prosecutor failed to disclose evidence it had before trial that was used to impeach the defendant's alibi.

This case is very different. Before trial, the defense was equipped with Tontarski's conclusions and with the underlying information on which he relied. The preliminary chromatograms shed no appreciably brighter light on either his

technique or on his ultimate opinions. Unlike *Schwantes*, any potential surprise here was minimized by keeping the additional chromatograms out of evidence. The prosecutor did not use the information to his advantage. In fact, it was the prosecutor who was responsible for calling the entire matter to the court's attention. Trial preparation was not seriously impeded. The defense was not prejudiced.

Even if Rule 9 were violated, it would not necessitate a new trial, especially since the failure to disclose was in good faith and was nonprejudicial. *See, State v. Daniels*, 332 N.W.2d 172 (Minn. 1983). To avoid these issues in the future, no doubt the better procedure would be to put requests in writing.

2. To justify a new trial, newly discovered evidence must be of a sort that could not have been discovered before trial by due diligence and that would materially have affected the outcome of the trial. *State v. Meldahl*, 310 Minn. 136, 245 N.W.2d 252 (1976); Minn. R. Crim. P. 26.04(1). The defense arguments do not meet this standard.

At the post-trial hearing, Davis testified that the additional chromatograms showed that Tontarski's technique was unreliable, that Tontarski was operating without standards, that ordinary building compounds were incorrectly considered, and that he believed Tontarski's samples were contaminated. Davis also expressed the concern that the additional chromatograms did not closely resemble the chromatograms that were supplied in pre-trial discovery.

Virtually all of these matters were exhaustively dealt with at trial. The question of standards, specifically a carbon disulphide standard, was explicitly raised at trial. Moreover, at his deposition Tontarski showed that his file on the case in fact contained that standard. Davis' concerns about contamination arose chiefly from the fact that sample containers

were punctured to "purge and trap" the contents. He argued that puncturing may have introduced foreign elements into the samples. These punctures were quite noticeable in the containers during trial, so the contamination argument was available to Davis at that time. In any event, Tontarski testified at his deposition regarding the safeguards taken to protect the integrity of the samples. The fact that Tontarski ran no control samples of building compounds in the house, such as carpeting, also was an issue before the jury. The one concern most directly related to the belated discovery of additional chromatograms was that they did not match the chromatograms which were turned over to the defense before trial. At his deposition, Tontarski explained that this was to be expected since in many instances his equipment was adjusted or the sample was cleaned of impurities to permit more accurate identification. These adjustments and cleansings would change the shape of the graph in each chromatogram.

The post-trial discovery of additional chromatograms provided no significant opportunities for cross-examination of Tontarski that did not exist at trial. Their disclosure before trial would not have made a material difference to the outcome. For these reasons, the defendant's motions are denied.

D.O.H.

APPENDIX D

C2-84-1661
STATE OF MINNESOTA
IN SUPREME COURT

STATE OF MINNESOTA,
Petitioner-Respondent,

vs.

ORVILLE BERNDT, JR.,
Respondent-Appellant.

MOTION FOR ORDER DIRECTING DISTRICT COURT TO DELIVER TRIAL COURT EXHIBITS TO MINNESOTA SUPREME COURT

To the Supreme Court, State of Minnesota:

This court filed a decision on March 21, 1986, reversing Appellant's four convictions for Murder in the First Degree. Since the filing of this decision, Respondent has learned that certain trial exhibits which were used at trial to explain the testimony of the arson experts were never delivered by the Hennepin County District Court to this court. *See* Affidavit of Susan Lynn-Paul Hauge, law clerk; Beverly J. Wolfe, attorney. Among the exhibits that were not delivered are the following: State's Exhibit Nos. 1, 2, 3, 4, 5, 18, 19, 20, 21, 22, 23, 24, 25, 31, 45, 46, 47, 48 and Defendant's Exhibit M. *See* Index attached to affidavits.

The State respectfully submits that the complicated arson testimony cannot be adequately understood without reference to the undelivered exhibits. The State is filing a Petition for Rehearing in this case along with this motion. It is submitted that it is essential that this court examine these undelivered

exhibits when it considers this Petition. Therefore, Respondent respectfully requests that this court order the district court to deliver all trial court exhibits in this case to this court.

DATED: April 10, 1986

Respectfully submitted,

BEVERLY J. WOLFE
Assistant County Attorney
Atty. Lic. No. 131751
C-2000 Government Center
Minneapolis, MN 55487
Phone: 348-8794
Attorney for Petitioner-
Respondent

C2-84-1661
STATE OF MINNESOTA
IN SUPREME COURT

STATE OF MINNESOTA,

Respondent,

vs.

ORVILLE BERNDT, JR.,

Appellant.

AFFIDAVIT

State of Minnesota
County of Hennepin—ss.

Susan Lynn-Paul Hauge, being first duly sworn on oath, deposes and says:

1. That she is a law clerk for the State of Minnesota, the Respondent in the above-entitled matter.

2. That she notified Kim Kuehn (297-1904), who works in the Minnesota Supreme Court Clerk's Office, on April 1, 1986, that it was necessary for her to borrow State's Exhibits Nos. 18 and 19 in the above-entitled manner for the purpose of reproducing and reducing them to be used in Respondent's Petition for Rehearing.

3. That on April 1, 1986, she went to the Clerk's Office to pick up those exhibits.

4. That she learned at that time from Kim Kuehn that State's Exhibits Nos. 18-25 were not listed on the District Court's Index of trial court record and had never been delivered to the Supreme Court.

5. That she received from Kim Kuehn a copy of the Index of the District Court File (see attachment) which showed that a large number of trial court exhibits were never delivered to the Supreme Court.

6. That Kim Kuehn called the Hennepin County District Court File Room for her and told her that these exhibits are locked up on B level under the supervision of Jerry Wallner and that a court order would be necessary to obtain them.

Further your affiant sayeth not.

Dated: April 8, 1986.

SUSAN LYNN-PAUL HAUGE
Law Clerk
C-2000 Government Center
Minneapolis, MN 55487
Phone: 348-3607
Law Clerk for Respondent

Subscribed and sworn to before me this 8th day of April, 1986. Barbara A. Besta, Notary Public.

Barbara A. Besta, Notary Public—Minnesota, Ramsey County, my commission expires Sept. 21, 1990.

C2-84-1661
STATE OF MINNESOTA
IN SUPREME COURT

STATE OF MINNESOTA,

Respondent,

vs.

ORVILLE BERNDT, JR.,

Appellant.

AFFIDAVIT

State of Minnesota
County of Hennepin—ss.

Beverly J. Wolfe, being first duly sworn on oath, deposes and says:

1. That she is an attorney for the State of Minnesota, the Respondent in the above-entitled matter.

2. That she learned on April 1, 1986, from her law clerk Susan Lynn-Paul Hauge, that numerous trial court exhibits in the above-entitled case were never delivered by Hennepin County District Court to the Minnesota Supreme Court.

3. That in June, 1985, she was absent from work due to illness and that she spoke by phone with a woman (name unknown) in the Hennepin County District Court Clerk's Office about her borrowing State's Exhibits No. 35-37 (video tapes) from the district court file. During this conversation, she told the woman that because this was a complicated arson case it was important that all of the trial court exhibits be delivered to the supreme court. She was told by the woman that the district court clerk's office was in the process of pre-

paring the exhibits and file for delivery to the supreme court.

4. That to the best of her knowledge, no copy of the trial court record index was ever sent to her office.

5. That she was under the good faith belief that all the trial court exhibits had been delivered to the supreme court.

6. That she has examined both the exhibits that were not delivered and the trial transcript and it is her belief that reference to the exhibits, especially State's Exhibits Nos. 18 and 19, are necessary to understand the opinions by the State's arson experts that Appellant could not have been inside the townhouse at the time the fire was ignited.

7. That she believes that transmission of these exhibits to the supreme court is essential in order for this court to understand the points that will be raised in the Petition for Rehearing that Respondent will be filing on or before April 10, 1986.

8. That her office has learned from Jerry Wallner of the Hennepin County District Court Clerk's Office that an order by the supreme court is necessary before the district court can deliver exhibits to the supreme court.

Further your affiant sayeth not.

Dated: April 8, 1986.

BEVERLY J. WOLFE
Assistant County Attorney
Atty. Lic. No. 131751
C-2000 Government Center
Minneapolis, MN 55487
Attorney for Respondent

Subscribed and sworn to before me this 8th day of April, 1986, Barbara A. Besta, Notary Public.

Barbara A. Besta, Notary Public—Minnesota, Ramsey County. My commission expires Sept. 21, 1990.

State of Minnesota
County of Hennepin

District Court
Fourth Judicial District

May 14, 1985

APPELLATE/SUPREME COURT RECEIPT

? ? ? ? ?

vs.

ORVILLE BERNDT, JR.

No. D.C. No. 80973-1
C2-84-1661

St. Paul, Minnesota

Received of Jack M. Provo District Court Administrator, Fourth Judicial District, Hennepin County, Minnesota, the original file consisting of:

		Date Filed
1.	Indictment (Copy)	08-17-82
2.	Indictment (Original)	08-17-82
3.	Notice of Prosecuting Attorney of Evidence and Identification Procedure Pursuant to Rule 7.01	08-18-82
4.	Affidavit	09-02-82
5.	Follow-up Report	
6.	Allied Fidelity Bond	09-02-82
7.	Letter Filed	09-08-82
8.	Notice of Motion and Motion	11-10-82
9.	Notice of Motion and Motion	11-15-82
10.	Order	03-04-83
11.	Judgment	11-12-83

12.	List of Possible State's Witnesses	11-14-83
13.	Memorandum in Support of Defendant's Motion in Limine No. 1	11-14-83
14.	Defendant's Motion in Limine No. 1	11-14-83
15.	Defendant's Motion in Limine No. 4	11-14-83
16.	Memorandum in Support of Defendant's Motion in Limine No. 3	11-14-83
17.	Defendant's Motion in Limine No. 3	11-14-83
18.	Defendant's Motion in Limine No. 5	11-14-83
19.	State's Memorandum	11-14-83
20.	Letter	11-14-83
21.	Memorandum in Support of Defendant's Motion in Limine No. 5	11-14-83
22.	Defendant's Motion in Limine No. 2	11-14-83
23.	Guilty Verdict Sheet	11-10-83
24.	Guilty Verdict Sheet	11-16-83
25.	Guilty Verdict Sheet	11-16-83
26.	Guilty Verdict Sheet	11-16-83
27.	Guilty Verdict Sheet	11-16-83
28.	Guilty Verdict Sheet	11-16-83
29.	Guilty Verdict Sheet	11-16-83
30.	Guilty Verdict Sheet	11-16-83
31.	Defendant's Proposed Witness List	11-14-83
32.	Criminal Witness List	11-16-83
33.	Jury List	11-16-83
34.	Jury List	11-16-83
35.	Criminal Witness List	11-16-83
36.	Sentence Transcript	11-17-83
37.	Sentence Transcript	11-18-83
38.	Notice of Motion and Motion	11-25-83
39.	Order	12-09-83

40.	Order	01-05-84
41.	Order	02-01-84
42.	Order	03-05-84
43.	Letter	08-01-84
44.	Letter	08-01-84
45.	Letter	08-01-84
46.	Order	08-01-84
47.	Memorandum in Support of Motion for New Trial	08-01-84
48.	Memorandum Opposing Motion for New Trial	08-01-84
49.	Letter	08-01-84
50.	Letter	08-01-84
51.	Letter	08-01-84
52.	Letter	08-01-84
53.	Order And Memorandum	08-01-84
54.	Order for Writ of Habeas Corpus Ad Prosequendum/Writ of Habeas Corpus Ad Prosequendum	03-19-84
55.	Writ Of Habeas Corpus Ad Prosequendum	03-19-84
56.	Letter	08-03-84
57.	Letter	08-03-84
58.	Letter	08-03-84
59.	Letter	08-03-84
60.	Letter	08-03-84
61.	Letter	08-03-84
62.	Letter	08-03-84
63.	Letter	08-03-84
64.	Letter	08-03-84
65.	Letter	08-03-84
66.	Letter	08-03-84
67.	Letter	08-03-84

68.	Letter	08-03-84
69.	Letter	08-03-84
70.	Letter	08-03-84
71.	Letter	08-03-84
72.	Letter	08-03-84
73.	Letter	08-03-84
74.	Letter	08-03-84
75.	Letter	08-03-84
76.	Letter	08-01-84
77.	Letter	08-20-84
78.	Certificate as to Transcript	09-24-84
79.	Notice of Appeal to Supreme Court	09-14-84
80.	Letter	09-14-84
81.	Notice of Case Filing	
82.	Certificate as to Transcript Delivery	11-19-84
83.	Certificate as to Transcript Delivery	11-19-84
84.	Letter	12-10-84
85.	Filing of Appellant's Brief	05-13-85

EXHIBIT'S

State Exhibits:		Item
86.	No. 6A - 6B	Photo's
87.	No. 7A - 7B	Photo's
88.	No. 8A - 8C	Photo's
89.	No. 9A - 9I	Photo's
90.	No. 10A - 10F	Photo's
91.	No. 11A - 11K	Photo's
92.	No. 12	Photo
93.	No. 13	Photo
94.	No. 17A - 17D	Photo's
95.	No. 26	Photo
96.	No. 27 - 30	Photo
97.	No. 32 - 33	Life Insurance Check

98.	No. 34	Life Insurance Policy
99.	No. 38 - 39	Photo
100.	No. 40 - 41	Diagram
101.	No. 42 - 44	Photo
102.	No. 35 - 37	Videotape's
	Defendant's Exhibits:	Item
103.	A	Graph's
104.	B - F	Recording Charts
105.	J - L	Photo's
106.	N4 - N53	Graphs
107.	O	Graph's
108.	P	Graph's

TRANSCRIPT'S

109.	Omnibus Hearing	11-19-84
110.	Motion	11-19-84
111.	Volume III - XVI	11-19-84
112.	Post Trial Hearing	04-26-85

in the above entitled cause.

APPENDIX E

C2-84-1661
STATE OF MINNESOTA
IN SUPREME COURT

STATE OF MINNESOTA,
Petitioner-Respondent,

vs.

ORVILLE BERNDT, JR.,
Respondent-Appellant.

MOTION TO ACCEPT PHOTO REPRODUCTIONS OF STATE'S EXHIBITS NOS. 18 AND 19

TO THE SUPREME COURT, STATE OF MINNESOTA:

The State of Minnesota respectfully requests that this court accept the State's photo reproductions of State's Exhibits Nos. 18 and 19 and to have them distributed with the Petition for Rehearing. It is submitted that reference to these photo reproductions are necessary to understand the State's Petition for Rehearing.

Dated: April 10, 1986.

Respectfully submitted,
MICHAEL RICHARDSON
For BEVERLY J. WOLFE
Assistant County Attorney
Atty. Lic. No. 91388
C-2000 Government Center
Minneapolis, MN 55487
Phone: 348-5988
Attorney for Petitioner-Respondent

APPENDIX F

734 66TH
DINING
KITCHEN
REF.
ENT.
LIVING ROOM
ENT
CL
LAV
TO
BSMT
UP
A-1
A-8
A-9
A-10
A-11
A-16
C-1
C-2
C-3
C-4
C-5
40

APPENDIX G

CL
CL
BATH
DOWN
CL
CL
CL
CL
CL
BEDROOM #3
BEDROOM #2
MASTER BEDROOM

APPENDIX H

INTERNATIONAL ASSOCIATION OF ARSON INVESTIGATORS, INC.
25 Newton Street
P.O. Box 600
Marlboro, Massachusetts 01752
Telephone (617) 481-5977

April 8, 1986

Bruce Ryden, Fire Marshal
City of Roseville
2660 Civic Center Drive
Roseville, Minnesota 55113

Dear Mr. Ryden:

On August 16, 1985 you filed a formal grievance against Shelby Gallein with the Ethical Practices and Grievance Committee of the International Association of Arson Investigators, Inc. This complaint concerned itself with trial testimony given by Mr. Gallien in a multiple homicide-arson case that was tried in Minneapolis.

The Committee has made numerous attempts to locate Mr. Gallien. These attempts included efforts made by representatives of the Committee to contact him personally, as well as efforts made by telephone and by mail. All of these attempts have been unsuccessful to date. The Committee is in receipt of an unverified report that Mr. Gallien was seriously ill.

The grievance is still pending before this Committee and efforts to locate Mr. Gallien will continue in order to bring this matter to a conclusion.

Very truly yours,
JOHN R. LEWIS
Chairman
Ethical Practices and
Grievance Committee

COMPLAINT

We, the undersigned, being members in good standing of the International Association of Arson Investigators, do hereby respectfully request the Officers & Board of Directors of the Association consider sanctions as specified in Article II, Section 7.b. of the Constitution & Bylaws against Mr. Shelby Gallien, 1324 Northwestern Avenue, West Lafayette, Indiana 47906 for violation of the Code of Ethics of the Association.

The following section of said Code of Ethics are alleged to have been violated:

1. "I will regard it my duty to know my work thoroughly. It is my further duty to avail myself of every opportunity to learn more about my profession."
2. I will make no claims to professional qualification which I do not possess.
3. I will bear in mind always that I am a truth seeker, not a case maker. That it is more important to protect the innocent than to convict the guilty.

Respectfully submitted,

Bruce E. Ryden William H. Bruen

COMPLAINANTS INVOLVEMENT IN TRIAL

The complainants were requested by the fire chief of the municipality where the fire occurred and the prosecutor to monitor the trial during the defense expert witness testimony to offer rebuttal to this expert both to the prosecutor and to testify if necessary.

Both complainants sat through the 1-1/2 days of direct testimony and the 1-1/2 days of cross examination, redirect and recross examination. It is the information obtained during this period upon which the complaint is based.

BACKGROUND

In August 1981, a fire in a townhouse took the lives of a mother and her three children. The father, allegedly asleep on the couch in the living room, awoke to see his wife on the floor of the dining room and a fire at the ceiling over his wife. He ran from the house (barefooted) and suffered no injuries. The wife died instantly of burns of the respiratory tract and the children of smoke inhalation after they got out of bed.

An investigation determined that gasoline like residue was found in samples of hardwood flooring, vinyl tile flooring and from the only piece of carpet left in the living room. AFT Labs in Washington, D.C. did the analysis.

Classic flammable burn patterns were found at the entrance to each of the children's bedrooms, at the bottom of the stairway to the second floor, the kitchen floor, living room, around the wife's body in the dining room and in the entryway to the townhouse.

A grand jury was impaneled and returned indictments on four counts of murder in the first degree and four counts of arson in the first degree against the father.

The trial was held in Minneapolis during which Shelby Gallien of 1324 Northwestern Avenue, West Lafayette, Indiana, testified for the defense. Mr. Gallien testified under direct examination that he believed there were three possible causes of the fire and the local investigators did an inadequate job of investigating due to inexperience. His three possible points of origin were:

1. Electrical fire in the exterior wall of the kitchen.
2. Frying pan left on kitchen range.
3. Cigarette dropped on carpet by wife next to her body.

When asked if the fire could have been due to gasoline being poured throughout the building and ignited from the outside, he stated: "Absolutely not".

Under cross examination, Mr. Gallien withdrew his opinions as to the electrical origin after being reminded that all receptacles and switches were removed, examined and found to have not been involved in the origin of the fire. He also withdrew the frying pan theory when reminded that the defendant and the investigators had testified the burners were all in the off position.

He continued to stick to his theory that a cigarette dropped on the carpet would melt the carpet back to its petroleum base, cause the smoke and hot gases to buildup at the ceiling and "flashback" in a localized area within 1-1/2 hours.

Under redirect examination, Mr. Gallien attempted to refute his testimony under cross examination by saying the prosecutor put words in his mouth but he (Mr. Gallien) had in no way attempted to eliminate the possibilities of the electrical or grease fire origins. He was still convinced that those three points could not be eliminated due to the inadequate investigation by the local investigators.

Under recross examination, Mr. Gallien's testimony under cross examination was read back and he stated, without any prompting by the prosecutor, "I've eliminated the electrical as a possible point of origin" and later, "I've eliminated the frying pan as a possible point of origin." The prosecutor stated: "Now lets get this straight, you originally had three possible points of origin, first the electrical in the kitchen and you've now eliminated that," "Yes sir". "Second, the frying pan on the stove and you've now eliminated that", "Yes sir". At that point both the prosecutor and defense attorney dismissed the witness.

The fire was investigated by members of the local fire department, the county sheriff department and, on consultation, the then head of the Minneapolis Arson Squad.

The jury found the defendant guilty of four counts of murder in the first degree, four counts of arson in the first degree and he was sentenced to life in prison.

SHELBY GALLIEN
DIRECT TESTIMONY

1. Claims to have started IAAI and trained, personally, 3,000 to 4,000 arson investigators.
2. Invented the use of the gas chromatograph in fire investigation.
3. Stated that if you do not have melted glass and melted alum. you do not have an accelerated fire.
4. Gasoline accelerated fire will reach "2,000° - 2,100° - 2,200°F".
5. Stated copper will melt if it is in an accelerated fire.
6. Could not light an accelerated (gasoline) fire and get away without being badly burned.
7. Stated 1 gallon of gasoline equals 400 lbs. nitroglycerine or 45 lbs. dynamite. Later changed to 85 lbs. nitro = 54 lbs. dynamite in "footpower".
8. Gave flammable limits for gasoline as 1.75 - 4% in air.
9. Stated carpet would melt down, pool and leave a gasoline like residue.
10. Heavy soot on windows indicates it could not have been a gasoline accelerated fire because gasoline burns hotter and cleaner.
11. Stated gasoline accelerated fire would have burned through floor—no burn through—no accelerant.
12. Explained burn patterns on hardwood floors being due to hot roof tar dropping on floor. (Totally disregarded

fact that there was gypsum wallboard and fiberglass insulation between roof and flooring).

13. Also gave "floor oil" and heavy wax on floor as explanation for burn patterns.
14. Stated size of alligatoring is not an indicator of the speed of a fire.
15. Sample of floor tile in entryway came in positive for accelerant. Gallien stated could not have been gasoline or it would have burned and been consumed.
16. Was unable to differentiate between BX cable and thin-wall conduit but stated that if a short had taken place, a temperature of 4,000, 5,000 or 6,000° would have melted the "iron" box and splattered molten metal all over. Arc will continue until box is completely gone.
17. Dry wall corner beading was not melted because there was no accelerant. If there had been an accelerant, it would have melted the aluminum beading. Beading was actually steel.
18. Courtroom was *too large* to have a flashover fire.
19. Testified the fire was slow starting fire with approximately 1-1/2 hour delay. Smoke and hot gases built-up to 3′ - 3-1/2′ deep at ceiling and "flashbacked".
20. "Flashback" type of fire has 4 phases:

    Phase 1. Smudge—such as from a cigarette—approximately 1-1/2 hours long.

    Phase 2. Heat level at ceiling—3′ - 5′ deep—flashback.

    Phase 3. Natural burn.

    Phase 4. Natural phase.
21. Testified "flashback" type of fire will flash down walls and cause a localized burning in center of floor. Most intense heat will be in center of the floor.

22. Low burning is characteristic of a "flashback" fire.
23. V patterns will show up in a "flashback" fire.

CROSS EXAMINATION

Mr. Gallien testified that:

1. "Graduate of OSHA Institute's course on Industrial Fire Investigation", there is no such course at OSHA.
2. NFPA determines flame spread rates.
3. Was not familiar with current standard tests on carpeting.
4. Burn patterns on floors were due to either air currents from windows or possibly from fire department fog patterns.
5. Ordinary steel melts at 2,200°F. - 2,300°F. or 2,400°F. Chrome steel melts at 2,600°F. - 2,700°F.
6. A drop of gasoline will fall faster than a drop of tar.
7. Light bulbs are not indicators that point to the origin area of a fire.
8. Cigarettes burn for 22 minutes and will start a fire in 1-1/2 hours if uninsulated.
9. *Carbon Dioxide* is flammable in and of itself.
10. Fires burn without oxygen.
11. Gasoline ignition temperature is + 45°F.
12. "Flashback" fires can be limited to a very small area of ceiling of a room.
13. Natural air drafts cause ruts to be burned in the floor.

REDIRECT

1. Difference between 4% and 7.6% upper flammable limit:

   7.6% will be low order explosion—slower.

   4% will be high order explosion—faster.

APPENDIX I

C2-84-1661
STATE OF MINNESOTA
IN SUPREME COURT

STATE OF MINNESOTA,
Petitioner-Respondent,

vs.

ORVILLE BERNDT, JR.,
Respondent-Appellant.

PETITION FOR REHEARING

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I. STATEMENT OF THE CASE

On August 17, 1982, the Hennepin County Grand Jury returned an indictment charging Orville Berndt, Jr., the Respondent-Appellant in this case (hereinafter referred to as Appellant) with four counts of Murder in the First Degree in violation of Minn. Stat. §609.185(1) (intentional and premeditated murder) and with four counts of Murder in the First Degree in violation of Minn. Stat. §609.185(3) (1981) (intentional murder by arson) for the deaths of his wife Brenda Berndt, his son Corey Berndt and his wife's two sons Michael Gage and Richard Gage. Following Appellant's pleas of not guilty to all counts, jury trial commenced before The Honorable Doris Ohlsen Huspeni on October 20, 1983 (T.1). On November 12, 1983, the jury returned verdicts finding Appellant guilty of all eight first degree murder counts (T. 2333). Immediately following these verdicts, the trial court sentenced Appellant to mandatory terms of life imprisonment for each first degree conviction pursuant to Minn. Stat. §609.-185(3) and ordered that the sentences be served concurrently (T.2340-42). Appellant's remaining four first degree murder convictions were merged pursuant to Minn. Stat. §609.035 (1981) (T.2342). Appellant filed a Motion for New Trial or Judgment of Acquittal which was denied by the trial court on August 1, 1984.

Appellant filed his Brief with this court on May 1, 1986. The State of Minnesota, the Petitioner-Respondent in this case, filed its Brief on July 12, 1986. Oral argument was held before this court on November 7, 1985. On March 21, 1986, this court filed a decision reversing Appellant's eight convictions of Murder in the First Degree. *See State v. Berndt*, —— N.W.2d —— (Minn., filed March 21, 1986). From this decision reversing Appellant's murder convictions, the State of

Minnesota petitions this court for rehearing pursuant to Minn. R.Civ.App.P. 140.01.

II. SUMMARY OF PETITION

In reversing the jury's findings that Appellant was guilty of eight counts of Murder in the First Degree for the deaths of his family, this court held that the evidence was insufficient to sustain the verdicts. The State respectfully submits that this court both overlooked critical portions of the evidence put forth by the State's arson experts and misconceived material evidence in the record. The State also submits that when the evidence that has been overlooked and misconceived is examined in the light most favorable to the jury's verdicts, the evidence presented by the State at trial is sufficient to sustain the jury's verdict.

Finally, it is submitted that the decision demonstrates that this court reconsidered the weight of the evidence—crediting testimony rejected by the jury and rejecting testimony credited by the jury. In doing so this court has departed from its usual standard of review and has, in effect, acted as a "thirteenth juror." Accordingly, pursuant to the United States Supreme Court holding in *Tibbs v. Florida*, 457 U.S. 31 (1982), it is respectfully submitted that the interests of justice require a new trial. Moreover, a new trial would not merely be a retrying of the same evidence since new evidence supporting Appellant's guilt has come to light. This new evidence includes: (1) Appellant's confession of the murders to a fellow inmate in April, 1985, and (2) the initiation of disciplinary actions by the International Association of Arson Investigators against the defense expert Shelby Gallien based upon his testimony at Appellant's trial.

III. IN HOLDING THAT THE EVIDENCE WAS INSUFFICIENT, THIS COURT OVERLOOKED AND MISCONCEIVED MATERIAL EVIDENCE IN THE CASE.

The decision in this case demonstrates that this court has overlooked and misconceived material evidence in this case. The overlooked and misconceived evidence can be classified into the following categories.[1]

A. The Decision Overlooked Material Exhibits and Material Arson Expert Testimony.

(1) After this court filed its decision, the State learned for the first time that material exhibits that were received into evidence were never delivered by the district court to this court.[2] *See* Affidavits, reprinted at pp. 13-16 of Petitioner's Appendix. Specifically, State's Exhibits Nos. 18 and 19 were not delivered to the court.[3] These exhibits show: the layout of both the first floor (Exhibit No. 18) and the second floor

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[1] It is respectfully submitted that the decision contains numerous statements that either overlook conflicting evidence or are based upon misconceptions of the evidence. For the purposes of this Petition, the State will note only those statements that were material to this court's holding that the evidence of guilt was insufficient.

[2] The State is filing along with this Petition a separate motion requesting an order directing the district court to deliver the exhibits to this court. *See* Petitioner's Appendix, pp. 11-12.

[3] Due to the significance that State's Exhibits Nos. 18 and 19 have in the jury's understanding of the testimony by the arson experts, the State has had these two exhibits reproduced and is sending fourteen copies of these exhibits to this court with this Petition.

(Exhibit No. 19) of the townhouse (T.403);[4] the location of the victims' bodies (T.410); the location of the suspicious burn patterns (T.403, 407, 410); and the location from where the positive gasoline samples were taken (T.414). At page 18, n. 12 of its Brief, the State specifically referred this court to Exhibits Nos. 18 and 19 in explaining the testimony of its arson experts. The unavailability of these exhibits has resulted in this court overlooking crucial evidence pertaining to the sufficiency issue. The jurors' acceptance of the State's arson experts' opinion that Appellant could not have escaped from the house without incurring severe bodily harm was based upon their examination and understanding of these two exhibits. It is respectfully submitted that this court could not have concluded that Appellant's story of escape was rational or feasible had it examined these exhibits. *See Berndt,* slip op. at 2-3.

Other significant exhibits not delivered to the court include State's Exhibits Nos. 1, 3, 4 and 5. State Exhibit No. 1 shows where the fire department is located in relationship to Appellant's townhouse and where Officer Adams and the neighbors were when they heard an explosion-type noise at 2:45 a.m. (T.53, 316). This exhibit buttresses the testimony by the State's witnesses that the fire was a rapidly-spreading fire

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[4] "T" refers to the transcript of the trial that commenced before The Honorable Doris Ohlsen Huspeni on October 20, 1983. The trial transcript consists of Volumes I-XVI.

This case also involved numerous pretrial and post trial hearings. Hereinafter, this Petition will refer to the transcripts of these various hearings as follows:

"O" refers to the omnibus hearing held before The Honorable Doris Ohlsen Huspeni on October 3, 4 and 5, 1983.

"M" refers to the post trial evidentiary hearing held before The Honorable Doris Ohlsen Huspeni on March 21, 1984.

"D" refers to the deposition taken from Richard Tontarski on May 8, 1984.

and that the fire department arrived on the scene within minutes of the fire being reported. State's Exhibits Nos. 3, 4, and 5 show where Appellant's neighbors' bedroom window was located and how their observance of the fire outside that window was inconsistent with Appellant's claim as to where the fire was located when it first started (T.241-43, 253-54). Examination of these exhibits was critical to the jurors' evaluation of the witnesses' testimony at trial and is necessary to any appellate review of the jury's findings.

(2) The court's acceptance of Appellant's testimony that there was an isolated fire in the townhouse prior to his escape from the house overlooks and misconceives the State's arson experts' testimony. *See Berndt*, slip op. at 2-3. The State's experts testified that the presence and location of gasoline in the house caused an automatic ignition throughout the first floor which made the existence of a small isolated fire impossible for any period of time. The evidence accepted by the jury at trial showed that gasoline was spread through the kitchen, the living room in front of the sofa, the hallway located between the living room and front door, on the stairs and near the front entryway. *See* State's Exhibit No. 18 (positive gasoline findings denoted in black ink). The evidence also showed that the heaviest area of burning was in the living room and in the area where living room and dining room meet. *See* State Exhibit No. 18 (suspicious burn patterns denoted in red ink). On the basis of this evidence, the State's arson experts ruled out the possibility of a small isolated fire for any period of time and testified that ignition of the fire would cause automatic ignition throughout the first floor. Specifically, the arson background and testimony of these experts were as follows:

(a) Brooklyn Center Fire Marshal Jerry Pedlar had extensive experience as both a fire fighter and fire in-

vestigator at the time he investigated the fire at Appellant's townhouse (T.710-14). He was familiar with the properties of gasoline and inflammability and had set 60-80 practice fires involving gasoline (T.717, 859). Based upon his experience and expertise, Mr. Pedlar testified that gasoline is "highly volatile" and that "once ignition has been made of the area [area with gasoline], that you get an automatic ignition of the fumes throughout the entire area" (T.717, 794).

(b) Sharadchandra Bhatt had a Bachelor's Degree in Engineering, a Master of Science Degree with a major in Industrial Engineering and had taken additional postmaster's work in the same field at the time he reviewed the arson evidence in this case (T.922-23). Mr. Bhatt specifically had experience in testing and investigating the use of accelerants in fires, including gasoline (T.927). Mr. Bhatt testified that if there is ignition in an area containing gasoline, there would be instantaneous combustion of all the gasoline fumes (T.934-35) and it would not be possible for there to be an isolated fire in the downstairs area for any significant period of time (T.935).

(c) Arson consultant James Carlson had been a member of the Minneapolis Fire Department for thirty years where he was a fire investigator for twelve years and Chief Investigator for an additional five years (T.1061). Based upon his experience with gasoline fires, Mr. Carlson testified that ignition of an area with gasoline results in "immediate ignition of the entire room" (T.1071) and that this is a "rapid ignition that happens within a fraction of a second, resulting in a fire" (T.1070).

(3) The decision overlooked and misconceived testimony by the State's arson experts that in their professional opinion

Appellant could not have escaped the townhouse without suffering serious bodily harm. The decision specifically states that:

> Upon discovery of the fire, appellant claims that he, in panic, rushed from the house. The state suggests the contention is irrational because appellant would have been injured had he left in that manner. Yet, there is evidence appellant had singed hair on the left side of his body, and that all the skin on the bottom of his feet turned brown and peeled off a few days after the fire.

Berndt, slip op. at 9. This court's reference to the singeing of Appellant's hair and his brown feet demonstrates that it either overlooked or misconceived the testimony by arson experts that Appellant could not have run through the entire length of the first floor without suffering *severe* bodily harm once the gasoline was ignited. Specifically, the arson experts testified as follows:

> (1) Fire Marshal Pedlar testified that on the basis of the burn patterns and the findings of gasoline it was his professional opinion that Appellant could not have escaped from the townhouse in the manner he claims he did without being burned (T.783-84). Mr. Pedlar was aware that Appellant had incurred some singeing on his left hand, forearm and eye lashes when he testified that Appellant could not have escaped in the manner he claims he escaped (T.832).
>
> (b) Arson expert James Carlson specifically testified as follows:
>
> A. [by James Carlson] That under those circumstances, it would be impossible for a person to have been in the room at the time of the ignition of these

vapors and escaped without being killed or at least harmed.

* * *

Q. [by the prosecutor] I say, severely harmed?

A. *Yes, severely harmed.* [T.1077, emphasis added.]

Examination of State's Exhibit No. 18 reveals that gasoline was present by the sofa, in the hallway and by the front entrance (T.548, 549, 743, 744, 749). In order to go from the sofa to the front door, Appellant would have had to go through trailers of gasoline that would have already been automatically ignited. It is respectfully submitted that it is *not* rational to conclude that Appellant could have run through the areas of the most severe burning and only suffer singeing of the hair on one side of his body and brown feet. Moreover, the testimony of Appellant's own experts substantiate the State's experts' testimony that someone could not have been in the center of a gasoline fire at ignition without suffering severe injury. In support of the defense's theory that there was no gasoline in the house, both Robert Davis and Shelby Gallien testified that a person igniting a gasoline fire under the conditions in this case would either suffer serious injury or be killed (T.1325-29, 1488-89, 1796, 1918). In relying upon Appellant's claim of brown feet as proof that Appellant was injured, this court overlooked both the fact that there was no evidence showing that Appellant was treated by a doctor for his feet (T.1144) and the fact that Appellant waited over six weeks to tell the police about his feet at which time most of the alleged brown skin was gone (T.983-84). Also, Appellant only told the police about his brown feet after they told him that they thought it would be impossible for him to escape without injury (T.983).

(4) The decision overlooked testimony by experienced fire fighters and investigators that it is not unusual to *not* smell

gasoline either at the fire scene or on the person who started the fire once the gasoline has been ignited. In holding that the evidence of Appellant's guilt was insufficient, the decision placed great weight upon the fact that neither Appellant nor the fire scene smelled of gasoline after the fire was ignited. *Berndt*, slip op. at 6 and 9. But numerous fire fighters and fire investigators who were experienced in the ignition and extinguishing of gasoline fires testified that it was not unusual to *not* smell gasoline fumes once the fire has been ignited. Specifically, these witnesses testified as follows:

(a) Stanley Owens, a fire fighter for 15-1/2 years who had staged 45-50 practice fires with gasoline, testified that it was *not* common to detect the odor of gasoline at these practice fires (T.141-42). Instead, he stated that the predominant odor at these fires was the material that was burning (T.141-42).

(b) Gary Giving, a fire fighter for 16 years who had experience in extinguishing approximately a dozen gasoline practice fires, testified that he was never able to detect the odor of gasoline after these practice fires were extinguished (T.156). He stated that the dominant smell is "[h]eat, burnt smoke smell" (T.156) and that the smell of gasoline was only detected prior to ignition (T.165).

(c) Chief Ronald Boman of the Brooklyn Center Fire Department testified that he had participated in ten to fifteen practice gasoline fires (T.173). He further testified that the odor of gasoline was never detectable either during or after the practice fires (T.173).

(d) Fire Marshal Jerry Pedlar testified that from his experience in setting 60-80 practice gasoline fires, he knows that it's possible not to detect the odor of gasoline at the scene of a gasoline fire (T.774, 847). He testified

that in gasoline fires, the gasoline is consumed and the vapors are burned off during the fire (T.859).

(e) James Carlson testified that even though Appellant was the person suspected of pouring and igniting the gasoline, the fact that no one smelled gasoline on him was *not* unusual (T.1089).

(f) Defense expert Shelby Gallien conceded that it is possible that other smells such as smoke may "override" gasoline odors (T.1610).

(5) This court misconceived the significance of Brenda Berndt's cause of death. The medical examiner testified that the low level of carbon monoxide in Brenda Berndt was consistent with a "superheated death" (T.898, 903, 906). A superheated death occurs when there is an instantaneous combustion or a very hot fire which damages the victim's lungs and causes death before a lethal level of carbon monoxide can be absorbed by the lungs (T.896). The decision stated that:

> Likewise, the autopsy report on Brenda was more consistent with appellant's theory than with that of the State.

Berndt, slip op. at 9. This statement demonstrates that this court misinterpreted both Appellant's theory of an accidental fire and the significance of Brenda Berndt's cause of death.

Defense expert Shelby Gallien's theory about a "flashback" fire was based upon the premise that there was a build-up of carbon monoxide gasses within the house to such a level that the gasses ignited (T.1400-05). Bruce Ryden, the Roseville Fire Marshal, testified that if the type of "flashback" fire that Mr. Gallien described had occurred, the build-up of gasses prior to ignition would cause persons present in the house at the time of the build-up to die of carbon monoxide poisoning prior to ignition (T.2112-13). Thus, if a "flashback" fire had occurred, Brenda would have died from inhaling a lethal level

of carbon monoxide before the fire ignited rather than from breathing superheated air.

The fact that Brenda died from breathing "superheated" air is inconsistent with Appellant's accidental "flashback" fire theory and is consistent with the State's evidence showing that Brenda Berndt's body was in the path of the gasoline trailer when it was ignited (T.757). Moreover, the fact that the boys' autopsies showed that their lungs contained lethal levels of carbon monoxide poisoning (T.881-82) is also consistent with the State's evidence of a gasoline fire. The suspicious burn patterns depicted in red ink on State's Exhibit No. 19 shows that the boys' bodies were not directly in the path of the suspicious burn patterns (T.304, 752). Thus, unlike their mother, the boys were exposed to the smoke of the fire but not to its intense heat before their deaths.

(6) The decision incorrectly states that the State's gas chromatography analyst "concluded that five of the samples indicated the presence of an accelerant—most probably gasoline." *Berndt*, slip op. at 5. The State's analyst testified *unequivocally* that the five samples contained gasoline (T.547, 548, 550, 551). He also noted that another sample contained lighter fluid (T. 574).

(7) The decision incorrectly assumes that the State claimed Appellant "carefully" poured the gasoline. *Berndt*, slip op. at pp. 5 and 6. The State's experts never testified that the gasoline must have been carefully spread throughout the townhouse. Indeed, evidence showing that the gasoline trailers varied in width from three to six inches to two feet and that gasoline was on the kitchen table demonstrates that the gasoline was not carefully poured (T.389, 775-76). Moreover, the fact that no one smelled gasoline on Appellant does not demonstrate that he poured the gasoline carefully since other evidence at trial established that the odor of gasoline is often

masked by the smoke and other smells once the gasoline is ignited (T.141-42, 156, 165, 173, 774, 847, 1089). *See* Part III.A.(4) of this Petition).

B. The Decision Overlooked and Misconceived Material Facts Concerning the Events Occurring Immediately Before and During the Fire.

The decision fails to mention several material facts that buttresses the State's evidence showing that the fire was a gasoline fire ignited by Appellant. Among these excluded facts are the following:

(1) The decision incorrectly states that:

> Immediately after the fire, appellant appeared confused as to what action Brenda had taken. In general, however, in each version, he indicated Brenda was heading into the dining room while he panicked and ran from the house because of the heat and smoke.

This statement ignores the fact that on August 21, 1981, the day after the fire, Appellant told police investigators that Brenda was upstairs on the night of the fire (T.969, 1183). It further ignores the fact that even though Appellant subsequently learned that the fire investigators found Brenda's body on the first floor, he again told the police on August 27, 1986, that Brenda was upstairs at the time of the fire (T.618, 979, 1184). It was not until October 6, 1981, when Appellant was informed that gasoline had been found in the townhouse (T.981), that he told the police that Brenda was on the sofa with him and that he saw her run into the fire (T.984, 1185).

(2) Appellant was seen walking alone outside his townhouse prior to the fire by an eleven year old boy who lived in the Georgetown townhouse complex (T.203-07, 781).

(3) The only witnesses who were awake prior to the fire all testified that they heard an explosion-type noise at the

time the fire started. Officer Adams and two neighbors in the nearby Chippewa Park apartments testified that at approximately 2:45 a.m. they heard a loud noise or "boom" (T.57, 310, 314, 319, 321). The boom caused the windows to shake in the Chippewa complex (T.314, 321). As State Exhibit No. 1 shows, these four persons were all located within a block of Appellant's townhouse when they heard the boom. This evidence supports the evidence showing that the fire was a rapidly-spreading fire since within ten minutes of hearing this loud noise, persons from a block away could see that the townhouse was engulfed in flames (T.61, 315, 321-22). This evidence also negates the defense's theory that this was a slow-starting fire (T.1400).

(4) The decision incorrectly states that when Officer Adams returned to the scene, "the second story was not burning." *Berndt*, slip op. at 3. On the contrary, Officer Adams testified that the second story was in flames when he arrived. Specifically, Officer Adams stated that although he did not notice any smoke or flames when he left the scene at 2:48 a.m. (T.58), when he returned to the scene at 2:54 a.m.:

> Every single window, door, opening of that place had fire or flames coming out of it besides that one window [the front window on the second floor]. That was the only one that didn't have anything coming out of it.

(T.61).

(5) The decision incorrectly states that "[b]oth Adams and appellant searched for a ladder to attempt to save the children on the second floor." *Berndt*, slip op. at 3. Appellant never searched for a ladder. Only neighbor Tim Crandall and Officer Adams looked for a ladder (T.62-63, 276). Moreover, when Officer Adams asked Appellant if there was a ladder, Appellant told him:

> There's no ladder. You're not going to find any ladder around here. Besides, even if you did find a ladder, it's too late to save them. They're all dead.

(O.10, T.63-64).

(6) The decision overlooks the fact that not only did Appellant not make any attempt to save his family (T.1205) while two of his neighbors made such attempts (T.258-60, 274), he also adamantly refused to help save his family when he would not tell the police where his wife and the boys were located inside the house (T.65-66).

(7) The decision's holding that "[n]o evidence was produced that any person residing in the townhouse project area was missing any gasoline nor any container," *Berndt*, slip op. at p. 6, overlooks material evidence. First, the decision incorrectly states that "[t]he caretaker testified that none of his gasoline was missing." *Berndt*, slip op. at p. 7. The caretaker testified that Appellant had a key to one of the storage garages where there was a one-gallon can of gasoline (T.910). On the morning after the fire, the caretaker examined the can and saw that it was half empty (T.911). The caretaker also testified that there was a container in another garage that contained five gallons of gasoline and that this container was half empty the morning after the fire (T.911). The caretaker never stated that none of the gasoline was missing. Instead, he testified that:

> When I say it was partially filled, I *gather* that my men had used that portion of the gasoline that was gone.

(T.918, emphasis added). Thus, the caretaker did not positively state that there was no gasoline missing.

More importantly, the decision overlooks the fact that Appellant's *own* car was parked near his townhouse on the night of the fire (T.972-73).

(8) The decision overlooks the fact that at the same time Appellant claimed that there was an isolated fire in the area of the dining room and kitchen, Appellant's next door neighbors Linda Kavai and Charlie Catron woke up to the roar of a fire and observed a fire from out their back window (T.242-43, 246, 253). Reference to State's Exhibits No. 3, 4, and 5 show that Ms. Kavai and Mr. Catron could not have possibly seen the fire from their bedroom window before Mr. Catron went outside *if* the fire had been where Appellant claimed it was before he allegedly ran out of the townhouse.

(9) The decision incorrectly states that:

> As Berndt came out the door, his next-door neighbor heard him screaming for the fire department.

Berndt, slip op. at 3. Appellant's neighbor Charlie Catron specifically testified that when he came out of his townhouse, it "seemed" to him that Appellant was coming out of his townhouse (T.255). But Mr. Catron also testified that:

> I didn't see [Appellant] come out the door, but we both went onto the lawn at the same time.

(T.255). Mr. Catron stated that when he first saw Appellant, Appellant was either on or very near the front step (T.255). At no point did Mr. Catron testify that Appellant was screaming for the fire department when he came out of the front door (T.255-56). Thus, the only evidence showing that Appellant came out of his townhouse at the same time Mr. Catron came out of the townhouse next door is Appellant's testimony.

(10) The decision overlooks the fact that if Appellant did not pour the gasoline and ignite the fire, a third person would have had to break into the house, pour gasoline upstairs on the stairs, around the first floor and near the sofa without waking up either Appellant or Brenda who were allegedly sleeping on

the sofa. Even Appellant admitted that it was unlikely that this could have happened (T.1224-25).

C. The Decision Overlooked and Misconceived Material Facts Concerning Appellant's Relationship with the Victim Brenda Berndt.

The decision overlooked and misstates material evidence concerning Appellant's relationship with his wife. Among these facts are the following:

(1) The decision incorrectly states the following:

> The state in this case sought to establish a motive by introducing evidence relating to Berndt's relationship with Brenda, in particular, his propensity to flirt and be promiscuous. Incidents in corroboration of this contention occurred long before the fire date. Moreover, appellant did not deny the incidents, but contended those problems had been resolved well before the fire. *No evidence rebuts that assertion.*

Berndt, slip op. at 7 (emphasis added). The evidence showed that there had been major problems with promiscuity throughout Appellant's and Brenda's seven year relationship. First, as soon as Brenda and Appellant began living together in 1974, Appellant attempted to have a sexual relationship with Brenda's sister Marla Henne (T.610, 612). After he and Brenda married in 1975, Appellant again physically grabbed Marla Henne in 1978 (T.615) and repeatedly called her to ask her to meet him in a motel for a sexual relationship (T.616, 1155-56). Although Appellant ceased making overtures to Ms. Henne in late 1978, Ms. Henne did not tell Brenda about Appellant's propositions until 1980 (T.617, 624). In addition, there was evidence that in 1979 Appellant physically grabbed a thirteen year old babysitter (T.511-14) and Appel-

lant admitted having three extramarital affairs during his six year marriage with Brenda (T.1150-51).

More importantly, despite Appellant's claim that he and Brenda had worked everything out a year before the fire (T.1113-14, 1157-59), there *was* significant evidence to rebut this assertion. Specifically, there was evidence that Brenda had a sexual relationship with a mutual acquaintance named Scott Tollin several months before her death (T.653, 655). Also, a couple of months before Brenda's death, Appellant physically grabbed the breasts of Sandra Jacobs in Brenda's presence (T.659, 1157). The evidence also showed that before Brenda's death, Appellant and Mr. Jacobs spent time together at Ms. Jacobs' home without Brenda being present (T.1263-64). Finally, the evidence showed that either on the night of the fire or shortly before that night, Appellant suggested to Glenn Snow that the two of them do some wife swapping (T.632-35).

Also, although the decision correctly states that no one observed any argument between Appellant and Brenda at the Earl Brown Bowl, it overlooks the fact that Brenda's ex-lover Scott Tollin was present at the bar that night (T.630, 640). It also overlooks the fact that Appellant took one of the women from the bar out to his car for a ride where they were alone together for at least fifteen minutes (T.642, 1122-23).

(2) The decision incorrectly states the following:

> Appellant claimed he was unaware of his wife's life insurance policy furnished by the State of Minnesota where she was employed. He was not even a named beneficiary on this policy.

Berndt, slip op. at 7. At no point in Appellant's testimony did Appellant ever claim that he was unaware of his wife's insurance policy through the State of Minnesota (T.1108-1223).

To the contrary, Appellant told police investigators on the morning after the fire that Brenda did have a life insurance policy through her employer (O.118).

Also, although the policy did not specifically name Appellant as beneficiary, the decision overlooks the fact that Appellant as Brenda's spouse had first priority as her beneficiary (T.705-06). It also overlooks the fact that with both Brenda and the boys dead, Appellant would be the only immediate family member left to collect the insurance.

(3) The decision's statement that the trial court may have "arguably" abused its discretion in admitting evidence as to Appellant's extramarital affairs overlooks the fact that the trial court excluded other evidence pertaining to Appellant's previous conduct. Specifically, the trial court ruled that the State could not introduce evidence showing that Appellant attempted to make a bomb to kill a police officer whom he suspected was having an affair with his first wife (O.202-07, 250-51). Also, the State agreed not to introduce evidence showing that Appellant had assaulted his first wife (O.201).

IV. EXAMINATION OF THE MATERIAL EVIDENCE THAT WAS OVERLOOKED AND MISCONCEIVED BY THIS COURT MAKES CLEAR THAT THE EVIDENCE VIEWED IN THE LIGHT MOST FAVORABLE TO THE VERDICT WAS SUFFICIENT TO SUSTAIN THE JURY'S VERDICTS.

This court's general standard for reviewing a claim of insufficient evidence in a criminal case is set forth as follows:

> In reviewing a claim of insufficient evidence we must determine whether, under the facts in the record and any legitimate inferences that can be drawn from them, a jury could reasonably conclude that the defendant was guilty of the offense charged. *State v. Merrill*, 274 N.W.

> 2d 99 (Minn. 1978). The evidence must be viewed in the light most favorable to the prosecution and it is necessary to assume that the jury believed the state's witnesses and disbelieved any contrary evidence. *State v. Wahlberg*, 296 N.W.2d 408 (Minn. 1980).

State v. Ulvinen, 313 N.W.2d 425, 428 (Minn. 1981). Although the evidence of Appellant's guilt was circumstantial in nature, this court has repeatedly held that:

> The circumstantial evidence in a criminal case is entitled to as much weight as any other kind of evidence so long as the circumstances proved are consistent with the hypothesis that the accused is guilty and inconsistent with any rational hypothesis except that of his guilt.

State v. Morgan, 290 Minn. 558, 561, 188 N.W.2d 917, 919 (1971). *See State v. Jacobson*, 326 N.W.2d 663, 665 (Minn. 1982) (circumstantial evidence showing that fire had been intentionally set and that defendant had financial motive to set fire held sufficient to sustain arson verdict). This court has also repeatedly held that normally a jury is in the best position to evaluate the circumstantial evidence surrounding the crime and the jury's verdict is entitled to due deference. *See e.g. State v. Daniels*, 380 N.W.2d 777, 781 (Minn. 1986); *State v. Anderson*, 379 N.W.2d 70, 75 (Minn. 1985).

Examination of the evidence in this case pursuant to the above-stated standards compels a finding that the evidence was sufficient to sustain the verdict. It is respectfully submitted that this court's holding of insufficiency was premised upon both its overlooking of material facts and its misconception of the arson testimony. Accordingly, the State respectfully requests that this holding of insufficiency be either reversed or modified.

That the insufficiency holding was premised upon a misconception of the evidence is demonstrated by the following decision excerpt:

> The state produced evidence which, if credited by the jury, would sustain its contention that the townhouse fire had been ignited with the use of gasoline accelerant . . . Some circumstances proved were consistent with the state's claim of an intentional fire, but other circumstances proved were generally consistent with the rational hypothesis that the defendant was not guilty.

Berndt, slip op. at 10. Despite this court's agreement that consideration of the evidence in the light most favorable to the verdict supports a finding that this was an arson gasoline fire, it relies upon evidence supporting the defendant's theory of an accidental fire to justify the holding that there were "other circumstances" consistent with the rational hypothesis that Appellant was not guilty. But the jury rejected the credibility of the evidence showing "other circumstances" since this evidence was inconsistent with the evidence that showed that the fire was a gasoline fire.

Based on the rapidly spreading fire, the classic suspicious low burn patterns and the positive gasoline findings, the State's experts testified that it was their conclusion that this was an arson gasoline fire. One defense expert disputed the gasoline findings and the other defense expert claimed that the fire could have been caused by a smoldering cigarette. The issue at trial became one of credibility between the two sets of experts. The jury's verdicts demonstrated that it accepted the expert conclusions of the State's experts and rejected the opinions put forth by the defense experts that were contrary to these conclusions.

Examination of all of the evidence in the record below shows that the jury could have reasonably credited the evidence proving that this was an arson gasoline fire and have reasonably rejected the defense testimony that was contrary

to a finding of arson. More importantly, the record shows that the evidence proving that this was a gasoline fire is consistent with the hypothesis that Appellant is guilty and is inconsistent with any *rational* hypothesis except that of his guilt.

A. The Circumstantial Evidence Proving that this was a Gasoline Fire Compels the Conclusion that Appellant Poured the Gasoline and Ignited the Fire.

That this court overlooked material evidence in this case is evident from the following excerpt from the decision:

> Except for the fact that appellant was physically present in his home when the fire started, there exists no other circumstances consistent with the state's hypothesis of guilt.

Berndt, slip op. at 8. Appellant's guilt was not proven by his presence in the home. On the contrary, his guilt was proven by the evidence showing that he could not have possibly been present inside the townhouse when it was ignited. The positive gas samples and the suspicious low burn patterns showed that gasoline was poured throughout the first floor with the largest amount poured in the living room near the sofa where Appellant claimed he was sleeping (T.372-75, 408, 549). *See* State's Exhibit No. 18. Since the State's experts testified that a fire in an area filled with gasoline would result in the immediate ignition of the entire area (T.717, 794, 934-35, 1070, 1071), the living room would have ignited while Appellant was still on the sofa. State's Exhibit No. 18 shows that had Appellant been on the sofa at the time the fire began, he would have had to run through a living room full of fire, a hallway full of fire and a front entryway full of fire to get out the front door.

The State's experts testified that Appellant could not have escaped in the manner he claimed he did without suffering severe injury (T.782, 783-84, 1077). These experts were aware

that Appellant had incurred slight singeing of his hair on his left side and claimed to have brown feet but they obviously did not consider this to constitute severe injury (T.782). Instead, it was reasonable for the jury to infer that the singeing on the left side was more consistent with Appellant standing outside throwing a match onto the gasoline than it was with him running through a house full of gasoline fire. Moreover, it is submitted that it was *rational* for the jury to conclude on the basis of the experts' testimony that Appellant's injuries would have consisted of more than brown feet had he run through the entire length of the townhouse while it was ablaze with ignited gasoline.

The decision's statement of the facts show that this court accepted Appellant's claim that he was on the sofa when the fire started. *See Berndt,* slip op. at 2-3. It is respectfully submitted that this court *cannot* accept Appellant's story of escape as true if it views the evidence in the light most favorable to the verdict. Acceptance of Appellant's claim requires rejection of the evidence showing that this was a gasoline fire since there could not have been an isolated limited fire in the dining room for any period of time if gasoline was spread throughout the house (T.717, 794, 934-35, 1070-71).

Because the evidence shows that Appellant could not have been inside the townhouse at the time the fire was ignited, the only rational inference is that he was outside of the house. Evidence showing both that he was outside of the house and that he lied about being inside the house at the time of the fire leads to only one rational conclusion—that Appellant ignited the fire and lied about being inside in an effort to divert suspicion from himself. What other rational hypothesis could

there be?[5] It is *not* rational to conclude that Appellant stood outside watching while some third person broke into the house, spread the gasoline throughout the house, and ignited it.

In rejecting the jury's finding that the circumstantial evidence ruled out any rational hypothesis except that of Appellant's guilt, this court relied upon the following factors: (1) no one detected the odor of gasoline either on Appellant or at the fire scene; (2) there was no evidence showing exactly where Appellant obtained the gasoline; (3) no empty gasoline containers or siphoning equipment was found at the fire scene and (4) Appellant had insufficient motive to commit the offense. If the jury's finding that this was a gasoline fire is accepted on appeal, none of the above-cited factors make rational the hypothesis that someone other than Appellant was the arsonist.

(1) No odor of gasoline.

The State's arson experts were aware that no gasoline odor was detected either on Appellant or at the fire scene. But these experts, all of whom had extensive experience in extinguishing gasoline fires, testified that it is not unusual to *not* smell gasoline either at the fire scene or on the person who poured and ignited the gasoline once the gasoline has been ignited (T.141-42, 156, 165, 173, 774, 847, 1089). The expert testimony established that when gasoline is ignited, the predominant odor becomes that of smoke and heat and these smells will mask any gasoline odors (T.141-42, 156, 859). Although the defense expert Mr. Gallien testified that if this was a gasoline fire the witnesses should have been able to detect gasoline odors both at the scene and on Appellant

[5] Although this court stated that there were "other circumstances . . . generally consistent with the rational hypothesis that the defendant was not guilty," *Berndt* slip op. at 10, the decision never explained what this rational hypothesis was.

(T.1321-23), Mr. Gallien also admitted that he no longer had the ability to smell anything (T.1324). More importantly, the jury obviously rejected Mr. Gallien's opinion on this issue.

It is inconsistent for this court to accept the jury's finding that this was a gasoline fire even though no gasoline odor was detected at the scene and yet refused to accept its finding that Appellant was the arsonist on the basis that no one detected gasoline odors on him. Although this court implied that it was not rational to infer that Appellant, with a blood alcohol content that at its highest could only have been .12 or .13, could have poured five gallons of gasoline "without spilling some of it on his person or clothing," *Berndt*, slip op. at 6, the alternative is even less rational. Even if the court could assume that Appellant's story of being inside the house was feasible, he would have had to run barefoot over carpeting drenched with gasoline in order to escape from the house. It is highly improbable that Appellant could have run through this gasoline without getting some of it on his feet.

Finally, the court's holding that the absence of gasoline odors makes it irrational to infer that Appellant was the arsonist is inconsistent with its recent decision in *State v. Daniels*, 380 N.W.2d 777 (Minn. 1986). In *Daniels* the defendant was accused of setting an apartment on fire with middle petroleum distillate consistent with mineral spirits. *See Daniels*, 380 N.W.2d at 780. In that case, as in this case, the defendant had been drinking alcohol for several hours prior to the fire. *See* Transcript for *State v. Daniels*, pp. 81-83, reprinted in Petitioner's Appendix. Also, as in this case, the defendant did not have any odor of petroleum distillate or mineral spirits and testing of his clothing did not reveal any finding of a petroleum distillate. *See* Transcript for *State v. Daniels*, pp. 179, 194, 359, 361, 393, 398, 401, reprinted in

Petitioner's Appendix. Despite the absence of any petroleum odors on the defendant in the *Daniels* case, this court held that the evidence was "consistent only with Daniels' guilt and inconsistent with any rational hypothesis except that of guilt." *Daniels*, 380 N.W.2d at 782.

(2) Absence of Evidence Showing Exactly Where Appellant Obtained the Gasoline.

It is submitted that the absence of evidence showing *exactly* where Appellant obtained the gasoline does not make irrational the jury's finding that Appellant was the arsonist. The evidence showed that a relatively small amount of gasoline—five gallons—was used in the fire (T.930). The evidence also showed that Appellant had a number of ready sources from where he could have obtained this gasoline, including the caretaker's garage (to which he had a key) (T.910-11) and nearby cars (T.1230-32). One of the nearby cars was Appellant's own car (T.972-73). Five gallons of gasoline is not a large amount—it is less than half a tankful for most cars. The fact that no one reported gasoline missing does not make the jury's finding of guilt irrational. Appellant could have easily taken gasoline from the caretaker's garage or he could have taken small amounts of gasoline from several parked cars. The jury could have reasonably inferred from common experience that someone could siphon one to two gallons from a car tank without the car's owner noticing that any gasoline was gone. More importantly, Appellant could have easily obtained all five gallons from his own car's gas tank. The jury could have reasonably concluded that had Appellant done so, he would not have reported the gasoline loss after the fire.

Although evidence showing exactly where Appellant obtained the gasoline would have strengthened the State's case, absence of this evidence does not justify a finding of insuf-

ficiency. This is not a case where the evidence showed that Appellant could not have obtained gasoline that night. To the contrary, there was ample evidence showing that Appellant had several ready sources from which he could have obtained the five gallons of gasoline.

Again, this court's reliance upon the absence of evidence showing exactly where Appellant obtained the five gallons of gasoline to reverse the convictions is inconsistent with its recent decision in *Daniels*. In *Daniels*, the State did not show exactly where the defendant obtained the petroleum distillate. Instead the State in *Daniels*, as in this case, showed that Appellant had access to these flammable liquids even though there was no positive showing that the liquids in the apartment storeroom were in fact the liquids that were used in the fire. *See Daniels*, 380 N.W.2d at 780.

(3) Absence of Gasoline Container and Siphoning Equipment.

Although the finding of a gasoline container and/or siphoning equipment would have made the State's case stronger, the absence of this evidence again does not justify a finding of insufficiency. The jury could have considered a number of rational explanations as to why no empty containers or siphoning equipment were found. Appellant could have used a combustible container which would have been consumed in the fire. Similarly, siphoning equipment could have been consumed in a fire. Also, Appellant could have disposed of these items either in the trash that was hauled away (T.778-80, 913-15, 920) or in another location not found by the investigators.

Since the evidence shows that this was a gasoline fire, it is clear that the gasoline was brought to the townhouse in *some* type of container. Because the absence of such a container does not make irrational the jury's finding that this

was a gasoline fire, absence of a container also does not make irrational its finding that Appellant was the arsonist. Again, the court's reliance upon this factor in reversing Appellant's conviction is inconsistent with its holding in *Daniels*. As in this case, no empty gasoline container was found near the scene of fire in *Daniels*. That the partially filled containers found in the storeroom in *Daniels* were the containers used was based upon reasonable inference and not positive proof. *See Daniels*, 380 N.W.2d at 781.

(4) Appellant's Motive.

In its decision, this court stated that it had "the firm impression that the state failed to establish a credible motive for causing Brenda's death." *Berndt*, slip op. at 7-8. This impression was based upon this court's acceptance of Appellant's claim that he and Brenda had resolved their problems a year previous to the fire. See *Berndt*, slip op. at 7. As previously noted in Section II(C)(1) of this Petition, there was ample evidence in the record rebutting Appellant's claim. The evidence showed that in the months immediately before the fire, Brenda had a sexual affair with another man (T.653, 655) while Appellant physically grabbed another woman's breast (T.659) and talked about wife swapping (T.632-35). The evidence at trial showed that Appellant's and Brenda's seven year relationship was a troubled one that was marked by infidelity by both parties (T.653, 655, 1150-51). The evidence also showed that when Appellant drank, he would become moody and would direct his anger at Brenda (T.218-25, 684, 961). Appellant was having financial problems at the time of the fire (T.1168) and the insurance money provided him with a financial motive to kill Brenda (T.702-06). The jury could have reasonably inferred that Appellant may have concluded

that if the boys also perished in the fire, it would make Brenda's death appear to be less suspicious.

More importantly, the jury found that this was an arson fire so *someone* had to have the motivation to murder the victims. Appellant was the only person who would gain from their deaths. There often is not a rational explanation for the crime of familicide and the precise motivation is usually unknown unless the perpetrator confesses. *See generally,* Malmquist, *Psychiatric Aspects of Familicide,* Bulletin of the AAPL Vol. VIII, No. 3 at 298. Although at oral argument Appellant's counsel argued that Brenda's ex-husband Harry Gage had a motive to commit the murders, there is absolutely nothing in the record to connect Mr. Gage to the fire. Also, since Appellant could not have been inside the house at the time it was ignited, acceptance of a theory that someone else started the fire *requires* acceptance of the theory that Appellant stood outside, watched as someone murdered his family and then lied to the police to cover up the murders. It is respectfully submitted that this hypothesis is not rational and was properly rejected by the jury.

Finally, as this court noted, the State "has no burden of establishing a motive for the crime." *Berndt,* slip op. at 7. The evidence established that Appellant was outside at the time the fire was ignited and that he lied about being inside at the time of the fire. This evidence conclusively shows that Appellant was the arsonist and the absence of a clear motive does not justify rejection of this evidence.

B. The Jury Could Have Reasonably Credited the Testimony Proving that this was an Arson Gasoline Fire and Have Reasonably Rejected any Contrary Testimony.

Although this court states that the evidence most favorable to the jury verdict shows that this was a gasoline fire, other comments in the decision demonstrate that this court did not reject the evidence that was contrary to the jury's verdict. The evidence in this record showed two directly opposing positions. The first position was that gasoline was present in the townhouse and that the fire was an arson gasoline fire. The second position was that there was no gasoline present in the townhouse and that the fire was consistent with an accidental fire. The jury credited the evidence supporting the first position and rejected evidence supporting the second position. Because examination of the record demonstrates that the jury could have rationally accepted the State's arson evidence and rejected the defense's theory of accidental fire, this court in reviewing the evidence must also reject evidence inconsistent with the State's arson evidence.

(1) The Jury Properly Credited Richard Tontarski's Expert Opinion that the Samples Contained Gasoline.

The 26 gasoline samples taken from the townhouse were analyzed by Richard E. Tontarski, a forensic scientist employed by the United States Bureau of Alcohol, Tobacco and Firearms (ATF) at the National Laboratory Center in Rockville, Maryland (T.527). Mr. Tontarski had completed the necessary course work to be classified as a chemist and received a Masters Degree in Forensic Science from George Washington University in 1978 (T.532). He has worked as a scientist for the ATF since 1978 and at the time of trial had analyzed fire scene samples for approximately 300 to 400 arson cases (T.530).

Mr. Tontarski testified to both his sampling procedures and his identification procedures (T.535-542, 554, 572-73, 574-75, 578, 580). Based upon his identification procedures, he positively identified the presence of gasoline in five samples

from the fire scene (T.547, 548, 550, 559). He testified that he made the positive identification when he compared the chromatograms produced by the samples with a 25% gasoline standard (75% evaporation of gasoline) (T.1081). He made this comparison by doing a side-by-side comparison of the unknown chromatogram to the known standard (T.538). He testified that the samples could not be analyzed by overlapping their chromatograms with a known standard because there are variations in machines and injection points (T.2081, 2096-99, 2150-51).

Robert Davis testified as a gas chromatography expert for the defense (T.1672). Mr. Davis received a Bachelor of Science Degree from Illinois Wesleyan University in 1955 and worked as an analytical chemist for the army, Pure Oil Company and Allied Chemical from 1955 to 1960 (T.1673-74). In 1962, Mr. Davis formed his own company where he conducted quality control work for oil companies (T.672-73). In 1971, his company also began conducting analytical work in the area of forensic science (T.1072-73, 1861).

Mr. Davis compared the chromatograms produced by the fire samples with the set of gasoline samples used by Mr. Tontarski (T.1731). Mr. Davis testified that he disagreed with Mr. Tontarski's findings and stated that the chromatograms did not show gasoline (T.1751, 1755, 1759, 1772, 1777, 1783, 1790, 2217).

Although the jury had two opposite expert conclusions to choose from, the record shows that there were several flaws in Mr. Davis' analysis of the chromatograms that seriously undermined the credibility of his opinion:

(1) When Mr. Davis made his initial determination that there was no gasoline, he was unaware of which gasoline standard Mr. Tontarski based his opinion on (T.1878). When he demonstrated to the jury that the

chromatograms from the samples did not contain gasoline, he compared the samples to a 100% gasoline standard (T.1743, 1755, 1759, 1772, 1777, 1783, 1790). When informed by the prosecutor that Mr. Tontarski based his comparison upon a 25% gasoline standard, Mr. Davis admitted that he should not have used the 100% gasoline standard in making his comparison (T.1898, 1910).

(2) Despite the fact that Mr. Tontarski testified that the chromatograms and standards should be analyzed in a side-by-side comparison rather than by overlapping the standards (T.2096-99, 2150-51), Mr. Davis conducted his comparison by overlapping the standards (T.1741, 1754, 1758, 1771, 1772, 1783, 2009-27).

(3) Mr. Davis never: (a) looked at Mr. Tontarski's manual explaining his sample preparation and comparison techniques (T.1900-01); (b) contacted Mr. Tontarski to ask about his techniques (T.1893, 1970-71); and (c) looked at the cans containing the samples prior to trial (T.1800).

(4) Mr. Davis admitted that he requires more matching peaks in a comparison before making a finding of gasoline than is legally required by the courts (T.1878, 1897).

From this, the jury could have reasonably concluded that Mr. Davis did not have sufficient background information about Mr. Tontarski's techniques to render a competent opinion as to whether there was gasoline in the samples. That Mr. Davis did not have sufficient information to offer a valid opinion is supported by his post-trial testimony which showed both that he never looked at Mr. Tontarski's manual prior to trial (M.4, D.6), and that he made incorrect assumptions

about Mr. Tontarski's sampling technique (M.7-8, 26, 40-43; D.15, 14-19). Moreover, from Mr. Davis' in-court comparison of the sample chromatograms with the wrong gasoline standard, the jurors may have reasonably inferred that Mr. Davis was attempting to confuse or mislead them. Thus, the jury could reasonably have both accepted Mr. Tontarski's opinion and rejected Mr. Davis' opinion pertaining to the presence of gasoline. Since the defense never challenged Mr. Tontarski's credentials as an expert at trial, the jury's acceptance of Mr. Tontarski's opinion should not be disregarded by this court.

(2) The Jury Could Have Reasonably Credited the Testimony by the State's Arson Experts That the Physical Evidence at the Scene was Consistent with a Gasoline Fire and Inconsistent with an Accidental Fire.

Jerry Pedlar, Fire Marshal for the Brooklyn Center Fire Department, personally observed the arson scene and concluded that the "fire was started as a result of flammable liquids" (T.783). Two independent arson consultants, James Carlson and Sharadchandra Bhatt, reviewed the reports, photos and videotapes in this case (T.930, 1076-76). Both consultants agreed that the evidence was consistent with a gasoline fire and was inconsistent with either a cigarette or electrical fire (T.944-45, 1076, 1093, 1095). These expert opinions were based upon the following physical evidence:

(a) Numerous suspicious low burns that could not be explained by the presence of a combustible in the area or by the dropping down of items (T.363-65, 372-75, 387, 393, 397, 400-01, 752-53, 755), especially the deep scarring and rutting in the living room area (T.372-74).

(b) The presence of "trailers" on both the ground level including the stairway which were sixty feet in

length with widths from three to six inches to two feet (T.775-76).

(c) The unusual burn on and under the kitchen table that was consistent with the presence of a liquid accelerant (T.388-90).

(d) The burning of the fire through the tread on the stairs which could only be explained by the seeping of a flammable liquid through the carpet and down into the stair treads (T.388-89).

(e) The presence of gasoline in the front door entryway (T.548, 765), on the kitchen windowsill (T.391-92, 546-47), in the living room by the sofa (T.408, 549), on the stairway (T.388-89, 549-50) and by the door to the bedroom where two of the boys were trapped (T.551, 752).

(f) The determination that none of the electrical appliances, outlets or wiring could have been the cause of the fire (T.422).

(g) The inability to find any other accidental cause for the fire (T.423).

(h) The observations by the policemen, firemen and neighbors showing that the fire spread through the house at an extremely rapid rate (T.58, 59, 60-61, 70, 90-91, 106, 136, 164, 185, 186, 210-211, 214, 243, 245, 249, 256, 259, 275-76, 283, 312) and the firemen's observations that

this was the worst residential fire that they have ever seen (T.114, 139-40, 149, 155, 172, 730).[6]

Although defense expert Shelby Gallien testified that the physical evidence was consistent with an accidental fire and was not consistent with a gasoline fire, the record demonstrates that considerable evidence cast doubt upon the credibility of Mr. Gallien's expert opinion:

(a) Mr. Gallien testified that the flammability range for gasoline was 1-3/4% to 4% (T.1430-31). The correct figure is 1.4% to 7.6% (T.1435, 1858). The defense's other expert, Mr. Davis, testified that Mr. Gallien's testimony on the flammability range constituted a "50 percent" error which in his opinion was a "gross error" (T.1858-59).

(b) Despite the fact that Mr. Gallien had copies of the reports in this case for over six months prior to trial, he was unable to reach any conclusion as to the cause of the fire until a few days before he testified (T.1466-67, 1471).

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[6] The decision notes that "[t]he time lapse between the alarm and the response of the fire fighters is in dispute." *Berndt*, slip op. at 3, n. 3. It is respectfully submitted that consideration of the evidence in the light most favorable to the verdict compels a finding that the police arrived on the scene at 2:56 a.m., five minutes after the fire was reported (T.106, 134-35, 151, 169, 110, 170-71). It was rational for the jury to make this finding since State's Exhibit No. 1 shows that the fire station was only one block from the townhouse (T.168-69) and the first firemen on the scene lived within a block of the fire station (T.168-69, 100, 152, 170-71). Also, although the neighbors stated that it took the fire department a long time to arrive, their presence at the fire could have easily altered their perception of time (T.216, 1098). More importantly, the police officers and firemen who testified that the firemen arrived within a short period of time were in constant contact with the dispatcher, whose job it was to correctly record times of arrival (T.65, 92, 110, 152, 171).

(c) Mr. Gallien testified on direct examination that this was a slow starting fire which could have been started by either a short in an electrical circuit, grease burning in the frying pan or a cigarette smoldering on the rug (T.1399-1401). When the prosecutor on cross examination pointed out that the fire scene reports contained information ruling out both an electrical or grease fire, Mr. Gallien abruptly repudiated two of his three theories concerning the fire's possible origin (T.1632-33, 1657-63).

(d) Mr. Gallien's only remaining theory concerning the fire's origin—that of a flashback fire caused by a smoldering cigarette—was contradicted by the following evidence:

(i) Buildup of gases for a flashback fire cannot occur when windows are open (T.1958-59, 2111). Testimony at trial showed that several windows in the townhouse were open at the time of trial (T.337); and

(ii) Buildup of sufficient gasses on the first floor to cause a flashback fire would have caused persons present on the first floor to die of carbon monoxide poisoning before the fire could ignite (T.1095, 2112). But Appellant, who claims he was present on the first floor of the townhouse, survived the fire. Also, Brenda died from breathing superheated air and not from carbon monoxide poisoning (T.898, 903, 906).

(e) Mr. Gallien's theory of an accidental fire was based upon the belief that there was no gasoline present in the townhouse (T.1348-49, 1357, 1367, 1369-70, 1392, 1422, 1644). But other evidence at trial showed that five fire scene samples contained gasoline (T.391-92, 408, 546-47, 548, 549-51).

The above demonstrates that the jurors, who actually observed the witnesses testify, could have rationally accepted the opinions of the State's experts. Moreover, the jury could have reasonably rejected any contrary opinions by Mr. Gallien since his testimony demonstrated both that he was not fully familiar with all the fire scene evidence when he reached his conclusions and that he was not fully acquainted with all the properties of gasoline. Since the jury had a rational basis upon which to reject Mr. Gallien's opinion, it is respectfully submitted that the requirement that evidence must be viewed in the light most favorable to the jury's verdict does not permit reliance upon Mr. Gallien's rejected theories as justification for a finding of insufficiency.

(3) The Jury Could Have Reasonably Concluded that Appellant's Story of Escape was not Credible.

The defense's accidental fire theory was premised upon Appellant's testimony that when he woke up, he saw a limited fire and ran through the house before the fire could spread. But the following physical evidence in the record casts doubt upon the credibility of this testimony:

(a) The findings of gasoline and the experts' opinions show that there could not have been a limited fire in the townhouse for any period of time (T.717, 794, 934-35, 1070-71).

(b) Appellant did not suffer significant injuries. The findings of gasoline and the experts' opinions show that Appellant could not have escaped the house in the manner he claims he did without suffering *severe* bodily harm (T.782-84, 1077).

(c) Appellant's testimony that he saw a limited fire in the portion of the dining room near the kitchen and then came out of the house at the same time his neighbor

Charlie Catron came out of his townhouse (T.335, 970, 1129-30, 1132-33) is inconsistent with Mr. Catron's testimony. At the same time Appellant allegedly saw a limited fire, Mr. Catron and Linda Kavai looked out their bedroom window and saw the fire (T.242-43, 247, 253). Reference to the location of Mr. Catron's window in State's Exhibits Nos. 3, 4, and 5 demonstrates that neither Mr. Catron nor Ms. Kavai could have possibly seen the fire from this window had it been confined to the dining room area by the kitchen. The fire clearly must have already spread throughout the rear of the living room by the time Mr. Catron and Ms. Kavai observed it.

(d) Appellant's story about Brenda getting up and running directly into the fire is inconsistent with the physical evidence showing that she would have had to run through and past a wall of fire in order to end up where she did on the dining room floor. *See* State's Exhibit 18. The physical evidence also shows that it is not rational to conclude that Brenda would get up and run through a wall of fire to reach the dining room since the boys were located in an opposite part of the house and there was no exit through the dining room.

In addition to the fact that the physical evidence contradicted Appellant's story, other evidence at trial cast doubt upon Appellant's credibility. This evidence includes the following:

(a) After telling the police on both August 21 and 27, 1981, that Brenda was upstairs at the time of the fire, (T.769, 1183), Appellant waited until six weeks after the fire to tell the police that he now thought Brenda was downstairs with him on the sofa (T.984, 1185).

(b) Although Appellant claimed his feet turned brown after the fire, there was no evidence showing that

he had his feet examined by a doctor (T.1144). Also, he did not tell the police about his feet until after the brown skin was gone (T.983-84).

(c) Appellant's claim that he and Brenda had worked out all their problems a year before the fire was rebutted by evidence showing that he both physically accosted another woman in Brenda's presence a couple months before the fire and discussed wife swapping with another man shortly before the fire (T.632-35, 659, 1113-14, 1157-59, 1263-65).

Although the decision appears to rely heavily upon Appellant's testimony in support of its holding that there was a rational hypothesis consistent with Appellant's innocence, the verdict demonstrates that the jury did not find his story of escape to be rational or credible. The significant inconsistencies in Appellant's statement to the police alone gave the jury "substantial grounds to doubt the veracity of [his] story." *State v. Race*, —— N.W.2d —— (Minn., filed March 21, 1986) (slip op. at 13) (citing *State v. Langley*, 354 N.W. 2d 389, 394 (Minn. 1984). Since the evidence viewed in the light most favorable to the jury's verdict shows that Appellant's claim of escape was impossible, it is respectfully submitted that this court cannot base a holding of insufficiency upon Appellant's impossible claim that there was a limited fire from which he was able to escape without serious injury.

V. BECAUSE THE EVIDENCE WAS TECHNICALLY SUFFICIENT TO SUSTAIN THE JURY'S VERDICTS, THE INTERESTS OF JUSTICE REQUIRE EITHER THAT THE VERDICTS BE REINSTATED OR THAT THE CASE BE REMANDED FOR TRIAL.

Acceptance of the evidence showing that this was an arson gasoline fire compels the conclusion that Appellant was the arsonist. Thus, application for this court's usual standard of

review requires reinstatement of the convictions upon this rehearing. However, if this court declines to reinstate the convictions, the State respectfully requests that this court recognize that its reversal was based upon its re-evaluation of the weight of the evidence as a "thirteenth juror" and remand this case for retrial. *See Tibbs v. United States*, 457 U.S. 31 (1982).

A. Remanding this Case for Retrial is Permissible under the Double Jeopardy Clause.

This court's doubt of Appellant's guilt could only be premised upon the rejection or questioning of both the State's gas chromatography expert's findings and the arson experts' opinion that a person could not run through a house ablaze with ignited gasoline without suffering severe injury. Although the State does not contest this court's authority to depart from its self-imposed review standard and act as a "thirteenth juror," it is respectfully submitted that this court's doubts about the arson experts' testimony should not result in Appellant receiving immunity for his crimes when the evidence was legally sufficient to sustain the verdict. Instead, the interests of justice require that the case be remanded for retrial so that a new jury can evaluate the credibility of the State's expert witnesses. *See generally Snyder v. Massachusetts*, 291 U.S. 97, 122 (1934) ("[b]ut justice, though due to the accused, is due to the accuser also").

Although the Sixth Amendment's Double Jeopardy Clause precludes retrial when a reversal is based on insufficient evidence, retrial is permissible when reversal is based on the weight of the evidence. *See Tibbs v. Florida*, 457 U.S. at

46-47.[7] The purpose of the Double Jeopardy Clause is to prevent the State from having an attempt to prove its case through successive prosecutions when it has failed to present technically sufficient evidence in the first trial. *See generally Burks v. United States*, 437 U.S. 1, 11 (1978). But when a reversal is based upon the weight of the evidence, the prosecution has already

> presented sufficient evidence to support conviction and has persuaded the jury to convict. The reversal simply affords the defendant a second opportunity to seek a favorable judgment.

Tibbs, 457 U.S. 43 (footnote omitted). Here, the State has presented sufficient evidence of Appellant's guilt and has already persuaded one jury to convict. This court's disagreement with the jury's assessment of the weight of the evidence should not be deemed the equivalent of an acquittal since this court re-evaluated the evidence without personally observing the witnesses' demeanor.

It is anticipated that Appellant will argue that a retrial of the same evidence would be a waste of time since a successful re-prosecution below would only result in this court again re-weighing the same evidence again on appeal. However, the United States Supreme Court noted that:

> Although reversal of a first conviction based on sharply conflicting testimony may serve the interests of justice, reversal of a second conviction based on the same evidence may not.

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[7] It is anticipated that Appellant will argue that the rationale in *Tibbs v. Florida*, 457 U.S. 31 (1982) is inapplicable to this case because the Florida Supreme Court based its reversal on a state rule that allows reversal and remand if the appellate court is convinced that the weight of the evidence does not support the verdict. *See Tibbs*, 457 U.S. at 36, n. 8. Although this court has never formally enunciated a similar rule, it is respectfully submitted that since the evidence was technically sufficient, this court has tacitly adopted a similar rule in this case.

Tibbs, 457 U.S. 43, n. 18. Here at a retrial, the defense will have an opportunity to remedy its gas chromatography expert's apparent lack of preparation at the first trial. As noted previously in Section IV(B)(1) of this Petition, Mr. Davis' testimony demonstrated that he was unaware of either Mr. Tontarski's sampling technique or his method of analysis. Consequently, the jury may well have discounted Mr. Davis' opinion since he did not appear to have an adequate factual background upon which to base his opinion. Conversely, upon becoming fully informed about Mr. Tontarski's technique, Mr. Davis may well agree with Mr. Tontarski's conclusion that the samples contained gasoline.

Moreover, at a new trial "[i]t is possible that new evidence . . . will make the State's case even stronger during a second trial than it was at the first." *Tibbs*, 457 U.S. 43, n. 19. This may be especially true in this case since new evidence has come to light that if credited by a jury, would make the State's case even stronger. This new evidence includes the following:

(1) A fellow inmate of Appellant's at Stillwater Prison has reported that Appellant confessed to setting a fire in a dwelling where children were present. *See* Affidavits and Statement reprinted in Petitioner's Confidential Appendix.[8] According to this inmate, he and Appellant were sharing a marijuana cigarette and watching a news program about another arson case involving an arson of a dwelling with a child inside. In response to this news report, Appellant told the inmate: "I did the same thing." Although this inmate is currently in-

[8] The name of this inmate is provided in the affidavits and statement contained in Petitioner's Confidential Appendix. To minimize the risk that other inmates may take retaliatory actions against this inmate, the State requests that this inmate's identity not be revealed to the public until a new trial is scheduled or until this court determines that the dictates of justice require an earlier release. A copy of Petitioner's Confidential Appendix, however, is being sent to Appellant's counsel.

carcerated, he has made no attempt to obtain any promises or deals from the prosecution in exchange for his cooperation. Also, no threats or promises were made by anyone to induce this inmate to provide this information. The only consideration given to this inmate is the promise that he will be transferred to a different Department of Corrections Facility so that his safety would not be in jeopardy from other inmates once it was revealed that he has provided the prosecution with evidence against Appellant. Because Appellant did not make this confession until April, 1985, it was not available as evidence at Appellant's initial trial.

(2) On August 16, 1985, a formal grievance complaint against defense expert Shelby Gallien was filed with the Ethical Practices and Grievance Committee of the International Arson Investigators, Inc. *See* Letter of John R. Lewis and Complaint reprinted at pp. 22-29 of Petitioner's Appendix. The complaint was based upon Mr. Gallien's alleged violations of ethical duties during his testimony at Appellant's trial. The complaint is still pending because the Ethical Practices and Grievance Committee has been unable to contact Mr. Gallien despite repeated attempts to do so. The defense's theory of accidental fire was premised primarily upon Mr. Gallien's expert opinion. In qualifying himself as an expert at trial, Mr. Gallien testified that he was a member of the International Association of Arson Investigators. At a retrial, evidence of this ethical grievance would serve to impeach both Mr. Gallien's credentials as an expert and his expert opinions.

It should be noted that the State is not requesting this court to reinstate the convictions as a result of this new evidence *nor* is it basing its request for a new trial on the ground that

it now has sufficient evidence to convict Appellant. The State's position is that the evidence at trial was technically sufficient to sustain the convictions. *See* Section IV of Petition. This new evidence is noted solely for the purpose of showing the court that if a jury credits this new evidence at a retrial and Appellant is again convicted, the evidence on appeal from a second successful prosecution may well resolve any doubts this court now has about the weight of the evidence.

B. Rehearing of this Case on Appeal is Permissible under the Double Jeopardy Clause.

In Appellant's Objection to Motion to Enlarge Time to File Petition for Rehearing, Appellant claims that because the decision stated that the evidence was insufficient, a rehearing of this case violates the Double Jeopardy Clause. Although under *Burks v. United States*, 437 U.S. 1 (1978), an appellate decision holding that as a matter of law that the evidence is insufficient bars retrial, double jeopardy does not bar further appellate proceedings in a case if the applicable rules allow for such proceedings. In this case, both Minn.R.Civ.App.P. 136.02 and 140.03 provide that the filing of a Petition for Rehearing stays the entering of judgment in this case until disposition of the petition.

Appellant's reliance upon *State v. Abraham*, 335 N.W.2d 745 (Minn. 1983) is inapplicable to this proceeding since, in reversing the convictions of this case, this court acted as a reviewing tribunal and not as the trier of fact. Although an acquittal by either the jury or a trial court judge cannot be appealed, an appellate court's finding of insufficiency is still subject to further appellate review. *See e.g. Tibbs*, 457 U.S. at 47 (Florida Supreme Court's reversal indicating sufficiency as reversal grounds did not bar reconsideration of this decision in a separate appellate proceeding).

VI. CONCLUSION

Consideration of the material evidence that was overlooked or misconceived demonstrates that the evidence of guilt was sufficient as a matter of law. Thus, this court's reversal was based upon a re-weighing of the evidence rather than a finding of sufficiency.

Therefore, the State respectfully requests that its Petition for Rehearing be granted and that this court either reinstate the jury's verdicts finding Appellant guilty of eight counts of Murder in the First Degree *or* remand the case for a new trial in the interests of justice.

Dated: April 10, 1986.

Respectfully submitted,

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APPENDIX J

Transcript Excerpts of Ward Mahlen's Testimony

[T.373] Mahlen—Direct

* * * has been overhauled and cleaned out.

Q. Dining room or living room?

A. Oh, I am sorry. I beg your pardon. The living room, and, once again, it shows a hole in the floor where we cut out a floor sample.

Q. And 9D, what does that show?

A. 9D is a closeup of some debris on the floor, which is the area of the sofa directly—which was located directly below the—if I have my directions right—south window of the living room.

Q. This sofa here (indicating)?

A. That's correct.

Q. Which is located here (indicating)?

A. That is correct.

Q. Where, in relationship to that sofa, was that piece of wood cut out of the floor?

A. Approximately 8 feet north of the sofa—north of the wall, so 3 or 4 feet in front of the sofa.

Q. Why did you cut that piece of wood out of there?

A. After we cleaned the floor, we saw unusual burn patterns on the floor. Patterns which we could n't explain naturally through any other accidental or natural burn process. The burn patterns were, had burned through the carpet, through three-quarter-inch sheet of particle board, and down into the plywood [T.374] subfloor and had formed a trail all of the way through the living room area.

Once again, we selected the area of the burned pattern that we felt was—gave us the best area that might have been

protected and may get the best chance to get a good sample.

Q. Did you take some pictures of those burn areas in the floor you described?

A. Yes, I did.

Q. Did you have them blown up?

A. Yes, I did.

Q. Would you take a look at what is marked here as State's Exhibits 15 and 16, they are a little bit out of order in relationship to the others. But, can you tell me if you recognize those photos and what they are—not what they are—and whether or not they are good shots?

A. Yes, they are accurate photographs of the scene.

MR. BYRNE: I am going to offer into evidence the State's Exhibits 15 and 16.

MR. CASCARANO: I have no objection.

THE COURT: There being no objection, State's 15 and 16 are received.

BY MR. BYRNE:

Q. I wonder if you will take a look at 15, Deputy, and [T.375] tell us what that is a picture of?

A. This is a picture of the deep scarring on the floor showing a very distinct pattern or trail where, I believe, accelerant had been poured. This is consistent with other—with my experiences where I see—

MR. CASCARANO: Can we approach the Bench?

THE COURT: Yes, come along.

(Conversation at the Bench, not recorded.)

THE COURT: Thank you, gentlemen.

BY MR. BYRNE:

Q. It is scarring and rutting in the floor, right?

A. Yes, it is. It also took place in the center of the floor.

Q. I want you to just for a moment stick with me and my question and then we will show the crowd where they were.

Why don't you take a look at Exhibit 16; tell us what that shows?

A. There is a little wider angle of the same area showing scarring or rutting through the particle board in the floor.

Q. Are they two different locations?

A. Yes, I believe they are.

Q. Could you then, with whatever index you have or record [T.376] of where the photographs came from, step to the model and with the pointer show the jury where each of the patterns was?

First of all we will refer to State's Exhibit 15.

A. Okay. Maybe on this area here—

Q. Well, yes.

A. Okay. We found two trails that went—one went this direction; another went down this direction; and the third connected the two. This area here (indicating).

Q. Fifteen?

A. Fifteen is an area of a burned trail. It was approximately in this area here in front of where these chairs would be.

THE COURT: For the record, would you describe what area it is that you are pointing out on the diagram?

THE WITNESS: Okay. That would be approximately 3 or 4 feet from the south common wall in the living room, in the approximate center of the room from east to west, 3 or 4 feet out. It ran east to west in the approximate center area of the room.

BY MR. BYRNE:

Q. Then could you tell us where the rutting or scarring that was visible in State's Exhibit 16 is located?

Again referring to State's Exhibit 4, the [T.377] overhead photograph.

A. This photograph shows the rutting. This would be the south end of the living room or—I beg your pardon, the west end of the living room going toward the east end; would start approximately in this area here and run almost all of the way down to the hallway. We can also see another area coming off here. This area was approximately—this area which connected the two scars.

This would be a linear scarring running from east to west on the north side of the living room.

Q. Extending off toward the dining room, is that correct?

A. Extending over to the dining room.

Q. I wonder if you would like to take your seat.

MR. BYRNE: Your Honor, I would like to offer these photographs to the jury at this time?

THE COURT: All right, you may do that.

MR. BYRNE: Does the Court wish to see these?

BY MR. BYRNE:

Q. Now, I want you to take a look at 10A through 10F. Tell me if you recognize those photos and if they are good pictures of what they show?

A. Yes. These areaphotos of the living room and ceiling. And they are accurate photos.

MR. BYRNE: I offer them into evidence.

* * *

[T.387] * * * significance with the jury.

Referring first to 11F.

A. This is a photograph of the northwest corner of the kitchen, showing the kitchen table and the floor area. We will be able to see it better when this area is cleaned out. Before we cleaned it out, you could still see we had a fire back at the area of the table here. This white area is the hot area. That is where the fire burned the hottest.

Q. Referring to the V pattern, you mean?

A. Well, you see a V pattern starting down in the corner and it goes up on either side of the wall. Once the fire started there, it sought oxygen, and the fire, of course, burned towards each window.

Q. This is obviously before cleanup, is that so?

A. That is right.

Q. And would you point to what corner that is on the map and also on the photograph?

A. It would be the northeast corner directly inside the kitchen area right back in here (indicating).

Q. Now, showing you State Exhibit 11H. Could you explain that to the jury, please?

A. This is a photograph of the top of the kitchen table; kitchen table was placed up against the east window, to the east window sill here. And, what is important [T.388] here is that we see a burned pattern right on top of the kitchen table, which we looked at later. We turned the kitchen table, and we found we were able to demonstrate this burned that took place from the top of the table, burned from the top down. And, as I say, fire burns in a predictable manner. It burns up.

So this is significant because the only way—

MR. CASCARANO: Your Honor, I am sorry, I will object again to any conclusions. Just simply describe what he sees in the picture.

THE COURT: Sustained.

MR. BYRNE: May we approach the bench, Your Honor?

THE COURT: Yes, come on.

(Conversation at the Bench, not recorded.)

THE COURT: You may proceed.

MR. CASCARANO: Your Honor, the record should reflect that there is a continuing objection during the testimony of

Mr. Mahlan. The objection is the Defense feels that Mr. Mahlan should be able to testify only to what he sees in the picture and not draw any conclusions from that.

THE COURT: The Court has ruled that in allowing Mr. Mahlan to testify as to the predictable [T.389] way a fire burns, that that is not the same as allowing him to testify as to the conclusion that there was an accelerant. So the Court is overruling Mr. Cascarano's objection.

MR. CASCARANO: Thank you.

MR. BYRNE: The objection is overruled?

THE COURT: Yes, the objection is overruled.

BY MR. BYRNE:

Q. Mr. Mahlan, you can continue explaining why it is significant to you as an investigator, an arson investigator, particularly, that this—that it was burning on the lower edge of the tabletop.

A. Okay. We determined that the fire burned from the top of the table down through the table which is an unnatural way for a fire to burn. It is consistent with the flammable liquid type of burn where something sat there and burned, and eventually burned itself down through the table.

We were able to further document that by turning the table over and noting there was no other burn on the bottom of the table. So we were able to determine that it burned from the top down.

Q. Does the table show an opening through which that burn might well have burned?

A. Yes, it does. As a matter of fact, there was two [T.390] areas right in the center where the two leaves of the table met, which is this area here and one other area independent of that.

Q. Showing you State's Exhibit 11I, would you explain the significance of that photograph to the jury, please?

A. Okay. We turned the table over, and, as you can see, the—there is virtually no burning that took place on the table. All of the metal areas are intact and this particle-board bottom is intact. The only burning we see is the area between the two sections of the table and one area over here which burned from the top down.

The top of the table had a wide scar, and when we looked on the bottom, it is much narrower, indicating the fire burning downward at this point.

Q. I am asking then for you to explain 11E?

A. Okay. This is the same point we saw before, after cleanup. We moved the table and much of the debris, swept the floor out and it is much easier to see a V pattern. Once again, in the corner of the room, which is normally a dead-air space, we see a fire originating right down in the corner. The baseboard is burned right through, and we can see the corner of the V heading off this direction and actually up into this area right here, indicating that there was an [T.391] unnatural reason for that fire to burn from the corner. It started down at the corner and burned up.

Q. Looking at 11K, can you tell me if I am holding it correctly?

A. That is right.

Q. Would you explain that photograph, please?

A. If we took the table and moved it out of the way and walked right up to the windowsill and looked straight down, that is what we would see. This is the sill on the window and we see a significant burn only in one area, even the paint isn't blistered in the rest of the windowsill. This area was—here, was protected because heat rises and the window wasn't out

all of the—heat went up to the top of the window. This bottom part of the window is fairly level with the top of the table, indicating a burned—with a very sharp line of good wood and bad wood, indicating—or it would be consistent with a flammable liquid sitting only in that area or being splashed only in that area and burned.

Q. Did you take a sample in that location for analysis?

A. Yes, we did.

Q. And 11J, that is the same window with the same scarring?

A. Same window with same scarring; however this time we [T.392] are standing outside of the building and we are looking in toward the kitchen. Once again, you can see a very sharp line which is burned there, with no natural explanation for the burn to be confined only to that small area.

Q. Would you demonstrate on the model where this window is, please?

A. That window is right here (indicating). The table is directly up against the window. On the model, it would be this windowsill right here (indicating).

Q. I have a couple other questions about the grouping of State's Exhibit 11. I would like to have you explain to the jury the significance of 11C.

A. Okay. This photograph is like this, this is a photograph of the kitchen—well, through the center of the kitchen, taken from the doorway of the dining room, standing in the dining room looking towards this window that we just saw the scarring. And you can see it right here in the photograph and we are looking down the floorway toward the window.

The significance here is the blistering and scarring of the floor all of the way from the edge of the floor way to the dining room and into the kitchen. The entire area here exhibits a blistering of the tile.

[T.393] Q. Would you explain to us what the floor covering in the entrance and the kitchen was?

A. It was a single linoleum or vinyl tiles. I don't remember exactly what the composition was, approximately 12 inches square that were placed on the floor.

Q. From the front entrance down into the kitchen?

A. From the front entrance throughout the kitchen, and also the hallway leading from the living room, from the entrance—the foyer area and the kitchen and actually, I guess, the area in front of the bathroom as well.

Q. And 11B, is that a closeup of that same bubbling effect on the tile?

A. Yes, it is. If we move approximately halfway through the kitchen from the first picture, we would look down and we would see how distinct and sharp the charring or bubbling on the floor is. If you look between the good and bad tile, you'd see that the good tile is—has virtually no flame damage to it at all. Only those very defined, black areas through the center of the tile exhibit any burning at all.

Q. In your experience—I am sorry.

In your experience as an arson investigator, are you able to tell us whether that bubbling and scarring is consistent also with the presence of a flammable [T.394] liquid?

A. Yes, it is. There is no other explanation, no explained reason for that to occur in an accidental or natural fire.

Q. I want you to take a look at what is marked as State's Exhibit 1.

Tell us, if you can, identify that?

A. Yes. This is a photograph of one of the upstairs bedrooms. It would be the southeast bedroom, I believe.

Q. Would you demonstrate with the model which bedroom that is?

A. This would be the northwest bedroom, this bedroom here and this bedroom up right in the corner (indicating).

Q. And who slept in there, who was found in there; do you know?

A. Two individuals were found in there.

Q. Michael and Corey?

A. I don't remember the names—Yeah.

MR. BYRNE: I offer State's Exhibit 12 into evidence?

MR. CASCARANO: Your Honor, for the record, we have had a chance to review those this morning in Chambers. We have no objection.

* * *

[T.397] THE COURT: State's 17A through D received.

BY MR. BYRNE:

Q. I want you to discuss with the jury the significance of 17A.

A. It is a photograph of the stairway that leads from the living-room area up about 7 or 8 steps to a landing. One would turn around and walk the rest of the way up to the second floor. The stairway heads exhibited great amounts of fire damage, see the rolling blisters.

And another thing that was significant with this, is that the damage was almost uniform throughout all of the steps, which we normally don't find if the fire is simply drawn up the stairway seeking oxygen. It was evenly burned, and even though the—what is that part called—the risers, behind the stair tread, it was burned through in several spots, which indicate that the fire sat on the steps and burned for a long, hot period of time.

Q. Does that stairway show some of that alligatoring effect that you discussed earlier?

A. Yes, it does. See the shiny, heavy, rolling blisters on the stair treads as well as the handrail and other wood members.

Q. I want you then to explain the significance of 17B.

[T.398] A. Okay. If we were to go down to the basement from the living room, to directly behind this set of stairs going to the second floor, there is another set of stairs that go down to the basement. So as we start down the basement, behind this set of stairs that we just saw in the earlier pictures, there was virtually no fire damage down in the basement. So the back of the stairs was covered with a piece of sheetrock or plasterboard; we peeled that sheetrock off.

What we observed was a heavy amount of burning on the back of the structural members. This is not the back of a step here; this is a joist. And we see a lot of burning down here in the joist itself, area, which is completely unexplained, because that entire area was—throughout the fire, was completely enclosed with sheetrock on one side and the joists on the other side, with the tread on top.

But, nevertheless, we see a large amount of burning on that area, unnatural, can't be explained in any natural way.

Q. This was the underside of the stairwell that went from the ground floor up to the second floor?

A. That's correct.

Q. Is that consistent with something present drawing the [T.399] fire down instead of burning up in its natural form?

A. About the only way we can explain is a flammable liquid seeped through the carpet and between the treads and the risers and flowed down the backside of the structural members, heating the joists.

And, when it reached high enough temperature, it also began to burn. There could be no other reason for us to find fire back there.

Q. There was no fire below it burning up into it?

A. No.

Q. Do State's Exhibits 17C and D—or do they, I should ask, demonstrate that same burning under the stairs?

A. Yes, they do.

Q. I am holding D correctly?

A. Yes. This dark area right down here is the basement, going down into the basement. That is that structural member joist and we can see the very sharp line without any difficulty. We can see exactly where the flammable liquid flowed and sat and burned. We see this going, some heavy charring, and we know it sat and burned for a significant amount of time because we can see approximately half of this two-by-four is burned through.

Q. Does 12C—or 17C, excuse me, demonstrate essentially * * *

* * *

[T.403] * * * those samples taken from the house?

A. Yes, we did.

Q. And those records were available to you?

A. Yes.

Q. And also of those records, did you prepare some materials to help demonstrate the location of those samples?

A. Yes, I did.

(State's Exhibit 18 and 19 were marked for identification.)

BY MR. BYRNE:

Q. Perhaps it would be easier if you were to step down here and take a look at, first of all, State's Exhibit 18 and tell me if you can identify this, and if it is accurate?

A. Yes, that is a diagram that we prepared and indicated several things on the diagram.

Q. And then looking at 19, can you tell us what that is?

A. That is a diagram of the second floor. This is the first floor, same thing, indicating different things found at the scene.

Q. Would you tell us what categories of things are represented on these diagrams?

A. The red areas represent the areas of initial-burn patterns.

[T.404] MR. CASCARANO: Can we approach the Bench?

THE COURT: Surely, come along.

(The following conversation at the Bench was recorded:)

MR. BYRNE: I would offer State's Exhibit 18 and 19 into evidence?

MR. CASCARANO: Your Honor, the Defense would object to the introduction of those diagrams as being cumulative. We have already seen the photographs which explain the same things, that is the case of both photographs where the bodies are found. Again, that is—well, cumulative. I don't see any purpose. I am also afraid by the diagrams of the bodies that may drawn some improper inferences.

I expect Dan will introduce the pictures to show the location of the bodies—that has been already introduced—tentatively introduced by the picture.

MR. BYRNE: The two diagrams have three levels of representation. The first is the location of the suspicious areas each—on each floor, showing the overall pictures of the suspicious areas as opposed to the individual photographs.

The second level is the location from which the samples were taken. There has been no designation where all of the samples came from until now.

[T.405] The third level is the—indicates where the bodies were located. And of interest of those five samples that were found to contain gasoline.

It assists the State in demonstrating the scope of the suspicious—scope of the investigation and in pinpointing with more precision the locations that are relevant to that.

THE COURT: So the reasons just set forth by Mr. Byrne on the record, the Court is determining that this is not cumulative. It is probative, and it is proper to be put before the jury. The objection is overruled.

I want to be sure, Mr. Byrne, that we continue to be aware of the kind of testimony that this witness is giving. I want to be sure that I understand whether or not you intend to have him testify specifically that gasoline—

MR. BYRNE: No, I don't.

THE COURT: Okay. I want to be sure that this testimony is consistent with a flammable liquid.

MR. BYRNE: That is all the farther he has gone.

MR. CASCARANO: The same admonition also applies to the victims upstairs. I don't know if he is going to say anything except—about the location [T.406] of the Teddy bear or anything like that?

MR. BYRNE: No, he is not going to say, no.

THE COURT: That is correct, fine.

MR. BYRNE: I didn't talk to him specifically about that.

MR. CASCARANO: And the protection, the one laying on top of the other, that is as far as we can go?

MR. BYRNE: Partially on top of the other.

THE COURT: Okay. No other considerations.

(That ends the conversation held at the Bench, recorded and out of the hearing of the jury.)

THE COURT: The objection is overruled. State's 18 and 19 are received.

I think it might be helpful for the record just to indicate again exactly what 18 and 19 depict.

BY MR. BYRNE:

Q. State Exhibit 18, Officer, is what level of the house?

A. That would be the ground or first floor.

Q. And State's Exhibit 19 would be?

A. Second level.

THE COURT: All right. Thank you. And you may proceed.

BY MR. BYRNE:

Q. Officer, I am going to put State's Exhibit 18 on the [T.407] easel and I want you to tell us what appears on the first level, information on 18, if you will tell the jury.

A. Okay. The first level, the red marks represent the unusual burn patterns or, rutting, scarring of the floor and fire starts that we were able to document. For instance, we were able to document that a fire here, here, this corner, this corner, et cetera, and these lines running through these rooms represent scarring and rutting, blistering on the floor that we observed.

Q. Once you made those observations and—Did you take some samples from that level of the house?

A. Yes, we did.

Q. And do they appear, the location of those samples appear on the second—Can you, referring to whatever notes or information you need to tell us, can you tell us what samples were taken from the first level and describe them, please?

A. In the green lettering I've written numbers and letters; they correspond to the sample numbers that I took from the residence. Start up here, A16 was a sample of a liquid floating on the water that was placed in the house by the firefighters.

They took a sample of the sludge floating, sludge floating on the [T.408] water near the refrigerator.

A8 was a sample taken from the floor where we observed the heaviest amount of blistering and scarring under the kitchen table in the corner of the kitchen.

A-11 was the windowsill, was cut out of the window, secured.

B38 was a sample of the moulding in the corner of this room that had been charred by fire. This is the entryway, and directly inside the entryway we saw the V pattern and the low moulding was burned.

B39 was a section of the floor that was cut right out of the floor in the entryway.

A18 was another sample of the tile, blistered area of the floor.

C2, C3, C4, C1 were items that were found where we dug through the closet there. They included a can of Holiday lighter fluid, a charcoal lighter fluid, and a partially-burned jacket, and samples of sludge on the floor.

A18 was another sample of the debris on the floor.

C5 and C6 were samples of the treads where we took a saw and literally cut sections of the treads on the stairway.

[T.409] B4 is a sample cut out of the floor, one of the areas where we saw of the heaviest rutting in the living room.

A10 was a sample of carpet. That is only one piece of carpeting we found in the entire house that hadn't been burned. It was a section of carpet approximately 8 or 10 inches in diameter. It was circular. And, we also found a metal tray approximately that size.

What had happened is the tray had been placed on the carpet and protected the carpet from burning, because no oxygen was able to get through the carpet in that area. So this represents the debris and the carpeting in that area.

A9 was a sample taken of the debris in that area.

Q. In looking at the third level, what does that demonstrate?

A. The third level represents, written in black, represents the position and location on the first floor where Mrs. Berndt was found. Those other references here, A10, C6, B38, and A11 are written in black because they were significant to us with respect to the report that we received back from the laboratory.

Q. We now are showing the jury State's Exhibit 19, which, [T.410] of course, is the second floor. I wonder if you could tell us what is on the first level of that, or first layer.

A. Okay. These red marks, once again, indicate heavy areas of char and unexplained fire locations in the rooms. There were—There was much heavy charring and many other areas of fire damage, but these only represent the areas we are certain could not have occurred naturally, had to be a result of something foreign.

Q. And the second level then?

A. Second level represents locations of samples that we took; B37, which was a section of the floor cut out of this boys' bedroom. And, B11 was a sample taken in the closet of the Master bedroom.

Q. That first one you referred to is—There were just two taken from the second level?

A. That's right.

Q. Of the wood and flammable samples?

A. Right.

Q. Then the last level?

A. Okay. The last level, once again, the black outlines represent the approximate location of the victims found in this bedroom and the one boy found in this bedroom. Once

again, the black sample numbers here [T.411] correspond to significant interest to us with respect to the evidence that was submitted.

Q. Did you also, Deputy Mahlan, take out—I think you have told us a number of electrical outlets and switches? Do you know how many you took? Precisely, if you know; approximately, if you don't.

A. I have a list here, but, approximately 30 switches and outlets.

(State's Exhibits 20, 21, 22, 23, 24, and 25 were marked for identification.)

BY MR. BYRNE:

Q. Will you take a look at, first of all, State's Exhibit 20. Tell us, if you can, identify that?

A. Okay. This is the sample of the—Do you want me to show it on the—

Q. Well, perhaps you can identify it by location?

A. Okay. This would be—

Q. And if you need the pointer on the model?

A. This can contains a portion of the stairway tread which I removed from the second stairway, second tread, going up to the second level from the living room.

MR. CASCARANO: Your Honor, may we approach the Bench for a moment?

THE COURT: Come along.

MR. CASCARANO: Your Honor, we would object * * *

* * *

[T.422] * * * It will come up with a clean, nice, shiny copper.

If it has gone through an electrical malfunction or extreme high heat, this copper can change color and it will be more of a maroon color than a copper color.

So we examined everything for those types of indications that might lead us to believe that an electrical malfunction had taken place.

Q. Did you find any indication of an electrical malfunction?

A. No, we did not.

Q. None whatsoever?

A. None whatsoever.

MR. BYRNE: Thank you, Deputy. I have nothing further.

THE COURT: Thank you.

Members of the jury, I have reconsidered about the break. I think we will take a very short one, approximately five minutes, and reconvene.

(Short recess taken.)

(In the Courtroom in the presence of the jury.)

THE COURT: Mr. Cascarano, you may inquire.

MR. CASCARANO: I have had a chance to speak with Mr. Byrne. I believe he has a few more questions.

THE COURT: All right. You may inquire, Mr. [T.423] Byrne.

BY MR. BYRNE:

Q. You saw no indication of any electrical malfunction. Did you see any indication of an accidental cause to that fire?

A. No. I don't see how it could have started accidentally, no.

Q. Any indication of any—This is repetitious—cause of that fire?

A. No. I see no way that the fire could have started and burned in any natural or accidental manner.

MR. BYRNE: Thank you, Deputy, I have nothing further.

THE COURT: Mr. Cascarano?

MR. CASCARANO: Thank you, Your Honor.

CROSS-EXAMINATION

BY MR. CASCARANO:

Q. Mr. Mahlan, you are qualified as a technician for the Sheriff's Department?

A. That's correct.

Q. You do a number of things as a technician?

A. Yes, I do.

Q. You went to school to learn about fingerprints, general things, is what I am trying to say, I guess?

A. That's correct. The same things that all of us do.

APPENDIX K

Transcript Excerpts of Fire Marshal Jerry Pedlar's Testimony

[T.717] Jerry Pedlar—Direct

A. Yes.

Q. In your experience both as a trainee in arson and then as an investigator in arson and in conducting the drills that you have described, have you learned something about the properties and characteristics of gasoline and inflammability?

A. Yes, I have.

Q. What could you tell us you learned about gasoline in those drills?

A. That it's highly volatile; that in the use of gasoline in a given area, that once ignition has been made of the area, that you get an automatic ignition of the fumes throughout the entire area.

Q. Does gasoline itself burn or is it the fumes that burn?

A. The fumes and the liquid will burn. The fire will communicate by the vapors.

Q. In your experience, have you seen where it is that a fire has started in an enclosed area where there are a lot of gas fumes?

A. (No response.)

Q. Do you understand that question?

A. No. Would you rephrase it, please.

Q. Have you seen an enclosed area full of fumes ignite?

A. Yes, I have.

Q. Could you describe how those fumes ignite or how the [T.718] flames spread in the ignition in a room full of gasoline fumes?

A. In the examples that we used during our house burnings, we poured gasoline into, for example, a basement area,

ignited it with a burning object, and there was automatic rapid ignition. The entire area just went "whoom" in flame.

Q. Would you sometimes hear a noise when it flamed up?

A. You would at times, yes.

Q. When you heard a noise, did how loud the noise was depend on the amount of gasoline or, rather, how long the fumes had had a chance to collect?

A. I would say that would probably depend, at least in my experience, on the length of time that the gasoline was there and the fumes were able to spread.

Q. The longer the fumes had to spread, the greater or the more instantaneous the combustion?

A. No, I can't say that that is true.

Q. The louder the noise?

A. At times. Again, it depends on the geographical area you're using.

Q. Could you explain that, please?

A. If it's in a confined area, at the time of ignition you may get the breakage of glass, for example, and the sudden energy of the ignition coming out through * * *

* * *

[T.768] (Thursday, October 27, 1983, Afternoon Session)

GERALD PEDLAR,

resumed the stand herein and, having previously been duly sworn, was examined and testified further as follows:

DIRECT-EXAMINATION (Continued)

BY MR. BYRNE:

Q. I believe before you showed us the tape, you told us you had checked the fuse and control boxes in the basement and also two appliances down there, a washer and a dryer; is that correct?

A. Yes.

Q. I don't know whether I asked you at that time whether you also checked the electrical appliances in the kitchen. If I didn't, I'm going to ask you now.

A. Yes, I did.

Q. What did you do to check those appliances?

A. We checked the dishwasher to see if it was in the on position, we checked the stove to see if any of the dials were in the on position, and we checked the refrigerator.

Q. Did you check beyond examining the controls to determine whether any one of those three items was the cause of the fire?

A. We checked behind the stove to see if there was any [T.769] indication of heavy burn.

Q. What did you find?

A. There was no indication of heavy burn behind the stove.

Q. How about the other two appliances?

A. As I recall, the dishwasher was a builtin. We were unable to get behind that. The refrigerator had a heavy concentration of soot and smoke buildup. We found nothing mechanically wrong, although the refrigerator itself was highly consumed by the heat.

Q. In your examination of these three appliances, did you have reason to believe that they may have been the cause of the fire, one or all three of them?

A. No.

Q. In addition to looking at the appliances, did you also then look at the electrical outlets and sockets and such?

A. Yes, we did.

Q. All of them?

A. Yes.

Q. How did you do that?

A. As we were going through each and every room, we took the electrical plug or receptacle out.

Q. And examined each?

A. Yes.

Q. I guess we can assume that that which had been exposed [T.770] to the fire was affected by the fire?

A. As I recall, on the outer plates of the plugs, there was some indication of heat.

Q. Did you examine the entire outlet in each case and the wires leading to it?

A. Yes.

Q. What were you looking for?

A. For any discoloration or any beading of the wire which would indicate a short or an arcing.

Q. What would be the significance of any beading or arcing?

A. If there was beading or arcing, that would indicate the possibility of an electrical fire.

Q. And did you find any beading or arcing?

A. No.

Q. In any of them?

A. No.

Q. Did you find any evidence at all in any of those outlets that they may have been the cause of the fire?

A. No.

Q. Did you look at the wire back inside the wall at some distance away from the outlet on these appliances? Not the appliance but the outlets.

A. We were able to look at the conduit or the tubing in which the wire went through in some given areas, but we did not look through all of the wiring inside the [T.771] walls.

Q. Was there any need to?

A. No.

Q. And why so?

A. There wasn't any indication that this was an electrical fire. We could find no beading of the wire, we could find no discoloration, we could find no heavy significant burn in any of the areas around the receptacle itself.

Q. Did you find any evidence of wall fires in the townhouse?

A. There was some fire inside some of the walls, as shown in the videotapes, but there was no significant burn in the general vicinity of all of the receptacles.

Q. Did you find in your examination some glass that you found significant?

A. Yes.

Q. And was some of that glass taken into custody by yourself or others?

A. Yes, it was.

Q. Will you take a look at what has been received here as State's Exhibit 25 and tell us what is in there.

A. It's glass.

Q. Would you explain if there is any significance in that glass to you as an arson investigator?

A. There appears to be a heavy crazing in the glass.

* * *

[T.774] there were phonograph records. There were items that in a fire would have probably given off more heat than other items.

Q. Those items that were seized by you were then sent to Washington, at least the combustible ones?

A. Yes.

Q. You were in the building shortly after the fire was extinguished?

A. Yes.

Q. Did you smell any gasoline?

A. No.

Q. Did you expect to?

A. No.

Q. Is a fire scene, even with gasoline present, such that the odor of gasoline may not be detected?

A. That's true.

Q. Do you know that from your experience in the test fires that you conducted?

A. Yes.

Q. You were with the defendant the morning some two hours after the fire, at the Brooklyn Center Fire Department?

A. Yes.

Q. Do you know what time it was when you were with him and had conversation?

A. Approximately 7:00 a.m.

* * *

[T.783] A. No.

MR. BYRNE: I would offer State's Exhibits 35, 36 and 37.

MR. CASCARANO: No objection.

THE COURT: State's Exhibits 35, 36 and 37 are received.

Q. (By Mr. Byrne) Mr. Pedlar, a couple more questions for you. Based on your experience as a firefighter, training as an arson investigator, your experience as an arson investigator, fire marshal, all of the information that you received as a result of this investigation, including a report from the laboratory in Washington, did you reach an opinion as to the cause of this fire?

A. Yes.

Q. And what is that opinion?

A. The fire was started as a result of flammable liquids.

Q. As an arson investigator, would you call that arson?

A. Yes.

Q. Based on your experience as a firefighter, your training as an arson investigator, your experience as an arson investigator, the knowledge you have acquired about gasoline and fires, both in training and in your drills with Brooklyn Center, based on all the knowledge you have acquired in your investigation of this fire, in- [T.784] cluding the report from Mr. Tontarski that five of those samples contained gasoline, do you have an opinion as to whether a man sleeping on that couch could have escaped through that front door after that fire started as the defendant claimed?

A. Yes, I have an opinion.

Q. And what is that opinion?

A. That he could not have done it.

Q. Do you have an opinion as to what the result would have been to him had he been in there as he claimed when that fire started?

A. I believe that he would have been burned as a result of the fire.

Q. Do you believe he could not escape without injury?

A. Yes.

MR. BYRNE: I have nothing further.

THE COURT: Thank you, counsel.

Mr. Cascarano, you may inquire.

CROSS-EXAMINATION

BY MR. CASCARANO:

Q. Mr. Pedlar, you indicated to us that over a one-year period of time, Brooklyn Center has 600 fires; is that right?

A. No. We have 600 calls.

Q. I misunderstood. I thought you said 600 fires.

* * *

[T.794] Jerry Pedlar—Cross

A. Yes.

Q. Now, when you go out there, you can see from one townhouse down all the way down another. In other words, they call that area a common cockloft; is that correct?

A. Yes.

Q. No fire stops?

A. There were no fire stops.

Q. You indicated to us that in a gasoline fire there is, I think the word you used was automatic ignition of an entire area. That is true, is it not?

A. I beg your pardon?

Q. I apologize. In a gasoline fire, I thought I heard you to say that if there is ignition, there is automatic ignition of the entire area, all the vapors burn or go off.

A. Yes, I said that.

Q. That's true?

A. Yes.

Q. And that automatic ignition then, one would expect to hear an explosion; that is correct, it it not?

A. Not necessarily, no.

Q. That would depend, would it not, on the amount of gasoline used?

A. Possibly, yes.

Q. It would also depend on the amount of time that the

* * *

* * *

[T.810] Q. On the same tread, Mr. Pedlar, as a matter of fact, a tread just below C-6, you took a sample, C-5, low burn?

A. I don't recall without looking at the notes exactly where C-5 came from.

Q. Now, you gave us your opinion as to whether or not Skip could get out of here?

A. Yes.

Q. That's based upon your experience and the fact that those black things there are gas?

A. Yes.

Q. I presume your opinion would be different if you found out that wasn't gas?

A. No, it would not be different.

Q. We talked about things that are of a suspicious nature that are not pure signs of arson: V-patterns, low burns, charring above, alligatoring, all of those things that we saw on your videotape on the pictures, those aren't sure signs of arson, are they?

A. They are unusual areas.

Q. I agree with that, but they aren't sure signs of arson?

A. No.

Q. There are some things in your experience as a fire investigator that are important, or perhaps sure signs of arson, one of which is if you smell gasoline on the arsonist. That is important, isn't it?

* * *

[T.847] Jerry Pedlar—Redirect

* * * in the floor was not that significant. Therefore, we didn't feel it necessary to take it from that area.

Q. And in this corner here in the living room, also no sample was taken. Why so?

A. Again, it's in the area of the television. There is some low burn on the moldings around the floor, but there were no significant burns in the top flooring.

Q. You told us also you didn't smell any gas at the scene. Were there other odors at the scene?

A. There were a number of odors. We could not depict what those odors were.

Q. Is that common at fire scenes, where there is smoke, char, destruction of material?

A. You can pick up a number of odors at a fire scene such as this.

Q. You also said that you saw something floating on some water that you were interested in. What was your examination of that? What was a result?

A. We saw some discoloration floating in the water in the debris in the kitchen next to the refrigerator. We understand that that came back negative.

Q. Mr. Cascarano was also interested in the shingles and the drip-down potential there. Is there any way that shingles could have melted in the master bedroom or the other bedroom adjacent to it in the rear of the house * * *

* * *

[T.859] Jerry Pedlar—Recross

* * * this, right? You just told us that.

A. You can. Obviously, you can smell things.

Q. Not only smoke or soot but other things, right?

A. If you get close enough.

Q. No gas, right?

A. No smell of gas.

MR. CASCARANO: I have nothing further.

THE COURT: Thank you, counsel.

Mr. Byrne?

REDIRECT-EXAMINATION (Continued)

BY MR. BYRNE:

Q. How many gas fires did you build with the fire department in those exercises that you told us about?

A. Approximately 64 hours worth.

Q. And how many fires?

A. Sixty, 70, 80.

Q. Did you smell gasoline when you went in after putting those fires out?

A. No. Due to the intenseness of the fire, the vapors and the fluid had burned off.

Q. Just a couple other questions. If you took a tile of the kind that was in this entryway and in the kitchen, as you did, placed it on a table, put a little gasoline on it and put a match on it, what would happen?

A. The gasoline is going to be consumed and the fire is

* * *

APPENDIX L

Transcript Excerpts of James Carlson's Testimony

[T.1070] Carlson—Direct

* * * high heat tend to burn just above the surface of the materials. Gasoline has—without going into too much chemistry—has what we call a flash point of minus 45 degrees. In other words, at 45 degrees below zero, we have vapors coming off of this material. So we always, under normal conditions, have vapors rising from gasoline. The vapors are heavier than air but they do rise.

On warm days at a gasoline station, you might be able to see these vapors coming out from your gasoline tank. The vapors tend to dissipate, they are over whatever amount of gasoline we have on the floor. They don't stay at one particular spot. They tend to rise and flow along the floor. If we could color these vapors, you might see a cloud traveling through the room. This cloud or vapors given off by gasoline is readily ignitable. And, when it meets a source of ignition, it ignites immediately.

The turbulence within this explosion or rapid ignition will, again, spread this gasoline. And, you have a fire that is exactly the opposite of a slow-burning progressive fire. We have one of very rapid ignition that happens within a fraction of a second, resulting in a fire. If we have this used as a trailer in a room, resulting in a fire that causes [T.1071] full involvement of the entire room rather than having the fire start from one spot, progress in a nice neat V pattern and go to the upper levels.

Q. You say "full involvement" of the room, instantaneously?

A. Instantaneously. And that is based on my own experience when I was a firefighter and I have had to use this on occasion because everybody doesn't get a chance to work with gasoline. But, in the '60s, when I was on the Rescue Squad in Minneapolis and we did burn many homes on the north side for firefighting practice, it was our job to ignite these houses.

And, as a young firefighter, we had a wonderful time throwing gasoline into rooms. But, we did learn how gasoline reacted, how fast it ignited and the volume of fire that resulted from that.

Q. And from that, you would say how quickly a roomful of gasoline fumes would be involved?

A. A roomful of gasoline fumes, provided we had more than a thimble full of gasoline, we have to have an amount of gasoline. As vapors immediately form above this gasoline, and once it ignites, it has immediate ignition of the entire room.

Q. In examining a fire or the cause of a fire, had you had an occasion to examine fire caused by cigarettes left carelessly somewhere?

* * *

[T.1076] A. They did.

Q. Did you go to the scene of the fire—I should say—

A. No, I did not.

Q. You became involved sometime after the fire had been extinguished and cleaned up?

A. That's right.

Q. Saw a series of photographs?

A. I saw photographs and the videotape of the scene.

Q. And with your experience as a firefighter, arson investigator, and with the examination of the evidence available to you through their investigations, were you able to come to

a conclusion as to whether the Georgetown fire was caused by arson?

A. Yes, I was.

Q. And what was that opinion?

A. That it was an arson fire, that it was ignited by hand by the use of flammable liquid, gasoline.

Q. And based again on your experience as a firefighter and as an arson investigator, your examination of all of the evidence available in this fire, were you able to come to an opinion with reasonable certainty as to whether someone in the townhouse, in the back at the couch, rear window, when the fire started, could have escaped without injury to the front door?

A. Yes, I have that opinion.

[T.1077] Q. What is your opinion?

A. That under those circumstances, it would be impossible for a person to have been in the room at the time of the ignition of these vapors and escaped without being killed or at least harmed.

Q. Severely harmed?

A. Not that I am aware of.

Q. I say, severely harmed?

A. Yes, severely harmed.

Q. On what do you base that opinion specifically?

A. I base that on the witnesses' discovery of the fire, that is their first knowledge of the fire as indicated by noises that indicated rushing air sounds, whooshing sounds, sounds of things falling, crackling and their immediate observation of fire either reflected out the window or actual flames out the window.

Q. In the rear of the house?

A. Pardon?

Q. At the rear of the house?

A. At the rear of the house in the windows or apartment adjacent to the witnesses' apartment. This indicated that at the time of this first indication of noise and flame that that room was fully involved with fire. From that point on, these witnesses had to get their senses about them to see what in the world had happened.

[T.1078] The witnesses state that they, one of them got dressed; he felt the walls; he went down the stairway; he came out of the front; all of this time the full involvement—that entire room was fully involved with fire.

At their first observation of this had indicated full involvement of this room, and nobody is going to be in a room full of vapors and indicate that they slowly progressed from one point to another like a TV fire, where a person can run through these little fires within a room without being harmed.

Q. Were there other factors involved in your judgment?

A. Yes. Primarily the time element, the indications of full involvement, lots of flame reflections out the windows, and the full physical evidence of the gasoline.

Q. Did this fire, in your judgment, have any characteristics of an electrical fire?

A. None whatsoever. We have a room that is fully involved with vapors that must be ignited and there was no indication that any of the electrical service would ignite those vapors as it sat under those conditions. Nobody was doing anything. Nobody was cooking, operating motors. It was inconceivable that you would have a gasoline vapors as shown, gasoline [T.1079] spread throughout a dwelling and then have some type of electrical malfunction coincidentally.

Q. It didn't have any of the characteristics of a cigarette-caused fire?

A. Again, it was a very rapid fire as evidenced by the firefighters and the witnesses at the physical scene, rather than a slow-burning fire.

Q. Am I correct that the electrical fire would have been a slow-burning fire, too?

A. That is correct. It would have been either in an appliance or within a wall.

MR. BYRNE: Thank you, Mr. Carlson, I have nothing further.

THE COURT: All right. This is a good time to take our break for lunch.

Mr. Carlson, you may step down.

MR. CASCARANO: Your Honor, may we approach the Bench for a moment?

THE COURT: Yes.

(Short discussion held at the Bench, not recorded.)

THE COURT: We have reconsidered. Stay where you are. And, Mr. Cascarano, we will ask you to inquire.

MR. CASCARANO: Thank you, Your Honor.

* * *

[T.1089] Carlson—Cross

Q. You are aware that nobody smelled gasoline on Skip?

A. I am aware of that which is not unusual, yes.

Q. You indicated that you base your conclusion on the observations of the next-door neighbor, Charlie Catron and Linda Kauai; are you aware that Linda said she never went to her window and looked out; are you aware of that?

A. I am only aware that she did see through her window, from what advantage point, I don't know.

Q. Okay. You are aware, are you not, that you indicated that it is not possible for Skip to get out. That Mr. Catron got back in?

A. I was aware that he went in a few feet, yes.

Q. Few feet; who told you he got in there a few feet, Jerry Pedlar?

A. Other investigators; Jerry Pedlar was one.

Q. Mr. Pedlar told you he got in just a few feet, did he?

A. He got into the kitchen.

Q. Finally, you relied upon the reports of Mr. Tontarski, who indicated he saw the presence of gasoline in the graphs?

A. I haven't seen those reports, but I am aware of it.

Q. All right. Upstairs, are you aware that there were some charred patterns by the front door of the * * *

* * *

[T.1093] Carlson—Redirect

Q. All right. We will then move on to the next question.

What kinds of materials or what can cause that kind of rutting and scarring of the floor?

A. This is typical and consistent with the burning of flammable liquid, petroleum products, gasoline.

Q. Do you know of any other cause for that kind of burn pattern?

A. Only petroleum products which would burn hot enough and long enough at the floor level in this kind of a pattern. And, so the answer would be only petroleum products.

Q. Including gasoline?

A. Yes.

Q. Now, there was some discussion about—

MR. CASCARANO: Your Honor, may be approach the Bench?

THE COURT: Surely, come along.

(Conversation at the Bench, not recorded.)

BY MR. BYRNE:

Q. There was some discussion about how a cigarette might smolder on a synthetic rug to start a fire. In all of your ex-

perience, is it conceivable that the kind of fire we are talking about at the Georgetown Townhouse could have started by a smoldering cigarette lying on a synthetic rug?

[T.1094] A. No, I don't agree that it could start on a synthetic rug in the first place. But there is no similarity between this fire and the common cigarette-caused fire in relation to the time element, the amount of smoke that would come from a cigarette-based fire in a sofa or a chair. And, primarily those two aspects.

Q. Well, let's say that somebody was lying on a couch on the first floor in State's Exhibit 3, having fallen asleep while watching television and there was a cigarette smoldering in the carpet here. What would be the likely result of that person sleeping on that couch?

A. This is in relation to a cigarette on the carpet?

Q. Or in some other location where it starts a smoldering fire?

A. If it was in a piece of upholstered furniture smoldering for an extended period of time, there would be considerable smoke that would come from it. It would be evident on your glass and surfaces as far as smoke over this period of time, and, chances are, that a person involved would be asphyxiated from the smoke within an hour-and-a-half.

Q. It was suggested in a question to you that that fire could get started by cigarette smoldering in the wrong position for up to an hour-and-a-half, like from 1:30 [T.1095] to 3 a.m. in the morning.

Is it conceivable, in your mind, that cigarette smoldering for an hour-and-a-half, from 1:30 a.m. to 3 a.m., that at 3 a.m. this townhouse would have been, for all practical purposes, totally, that first and second floor, covered, filled with flames?

A. Not at all. You would have had a fire confined to that one area where it originated and, at the most, one room. If this were in an isolated farmhouse, it would be different, but we have people in the immediate area, adjacent, that would have smelled smoke very early.

Q. There were questions asked of you about the elimination of an electrical-caused fire.

In your review of this investigation and your knowledge of the evidence before you, do you consider the investigation made of the electrical possibility a complete investigation?

MR. CASCARANO: Your Honor, I'm going to object to that. It calls for a conclusion of this witness. This witness is disqualified in that he didn't conduct his own investigation.

THE COURT: Overruled.

A. May I answer? I would consider the investigation that the other investigators made relative to electrical [T.1096] cause, under these circumstances, to be totally sufficient.

BY MR. BYRNE:

Q. Incidentally, there was a discussion about the use of the term "trailers" and you said you didn't use that term.

What does the term "trailers" mean to you?

A. It means material used to communicate fire from one area, from the area of origin, to another. It is an arson, piece of arson equipment, I guess, you would call it.

Q. Would you consider, whether you use the term originally or not, those burned characteristics as "trailers"?

A. As I said, I don't—I didn't use that term, but I would consider that a trailer, yes. It communicates from one area to another by use of a flammable liquid.

Q. The other question asked of you, I believe you conducted the information that the neighbors, none of them reporting hearing an explosion.

Could you explain to us what sorts of sounds you might expect or would expect and have experienced in dealing with gasoline fires when a quantity of gasoline fumes ignited?

A. First of all, the term "explosion" means different * * *

* * *

APPENDIX M

Transcript Excerpts of Sharadchandra Bhatt's Testimony

[T.927] Scharadchandra Bhatt—Direct

Q. Specifically, have you had some experience with and/or tested with gasoline?

A. Yes, I have.

Q. Could you describe that, please?

A. In addition to the observation of the damages produced by burning of gasoline, the one particular type of testing that I have done which can shed some light on certain aspects of the involvement of gasoline in a fire is regarding the rate at which gasoline fumes can be created from a certain amount of surface area. If there is a gasoline spill, the gasoline evaporates at a certain rate. And I have been able to measure, through the testing equipment that I have, as to how fast it will evaporate and the kinds of conditions it can create in a certain length of time.

Q. Were you asked by the authorities investigating the townhouse fire in Brooklyn Center which occurred in August of 1981 to analyze their investigation and make some—analyze their investigation, first of all, to review the investigation?

A. Yes, I was.

Q. And in doing so, were you provided reports of the investigation for your reading?

A. Yes, I was.

Q. Were you also given an opportunity to view some video-

* * *

* * *

[T.930] * * * have used to form one particular opinion.

Q. Based on your examination, based on your experience and training as an engineer and your experience as an engineer and investigator of fires, based on your understanding

of the properties of gasoline, based on your experiments with and understanding of the evaporation of gasoline, have you reached an opinion with reasonable scientific certainty as to how much gasoline would have been present in the ground level of that house?

A. I have not reached an opinion as to an exact amount, no.

Q. Have you reached a reasonable estimate to a degree of scientific certainty that you feel comfortable with?

A. Yes, I have.

Q. And what is that estimate?

A. The estimate that I have reached is that a quantity of about five gallons of gasoline would have been ample to produce gasoline trails of the dimensions that have been described. What I am saying is, I'm not saying that no more than five gallons of gasoline could have been used. What I am saying is, five gallons of gasoline would have been an ample quantity, would have been sufficient.

Q. Referring just to the first floor?

A. Correct.

Q. Now, did you go beyond that conclusion to analyze what the presence of five gallons of gasoline would do in that * * *

* * *

[T.934] * * * actual thickness of the area could be slightly higher, but half an inch is a good practical estimate.

It is also possible with the same amount of gasoline vapors to produce a comparatively lean mixture which will still burn or which will still flash, and that can be produced in the range of 1.4 percent of gasoline vapors by volume and the rest of it air. You can create a lean mixture like this. Of course, the layer would be thicker, on the order of two and three-quarters of an inch. But in one minute of evaporation, you can create an explosive mixture anywhere from half an inch thick to two and three-quarters of an inch thick.

Q. In your experience with gasoline, and in your literature as well, could you explain to the jury what would happen if that vapor would be ignited in some location in the house at that time?

A. First of all, when these vapors are mixed with air to form this combustible mixture in the range that we have been talking about, it is capable of being ignited by a source of ignition. The temperature of the source of ignition typically is on the order of 800 degrees Fahrenheit, although for very low octane gasoline, the ignition temperatures are somewhat lower. When an ignition source like this is introduced, the gasoline ignites and a flame front then travels through the entire [T.935] mixture in a fashion somewhat similar to the flame front traveling from a spark plug in an automobile engine and then spreading throughout the cylinder. So from the point of ignition, the gasoline will start to burn, and this burning will spread very quickly throughout the combustible mixture of gasoline vapors and air. So in essence, there will be a flash that would ignite the collection of these vapors along the floor of that first floor. At that point, the heat that is being created by the flash will be picked up by the trails of gasoline, raising its temperature, and accelerating the process of the evaporation of the gasoline. At that point, it becomes a cyclical process, that the heat produced by the flash evaporates more gasoline, which tends to burn, and that tends to evaporate more of the fuel, and so burning like this will continue.

Q. Would there have been an instantaneous combustion of all those fumes, for all practical purposes?

A. For all practical purposes, yes.

Q. Would it have been possible for there to have been an isolated fire in that downstairs area for any significant amount of time?

A. No, not under these circumstances.

Q. Mr. Bhatt, I now want to ask you if you are familiar with the characteristics of electrical fires.

* * *

[T.944] * * * of an occurrence.

Q. Is it possible to generalize as to the speed of the spread of an electrical fire?

A. A purely electrical fire, yes.

Q. And what would that conclusion be?

A. The speed with which a purely electrical fire—and I would like to explain what I mean by a purely electrical fire. A purely electrical fire I would define as one that started at an electrical source of ignition and spread through the normal type of combustible materials that would be present, solid combustible materials that would be present, in a residential construction of the type that we are talking about. It would be controlled by the type of materials that were present in that construction. All I can say without knowing the precise type of materials is that it would be comparatively slow, and by that I mean I am comparing it with another type of combustible material as a hypothetical.

Q. The other type of combustible material being what?

A. The comparison I am making to the solid type of construction material is with combustible fumes, specifically of gasoline fumes.

Q. In your analysis of this fire, was its origin consistent with the presence of gasoline?

A. To the best of my knowledge, yes.

[T.945] Q. Was it consistent with an electrically started fire?

A. To the best of my knowledge, and with the evidence that has been made available to me, no.

Q. Might there be one qualification on that; might an electrical something in the spark in one of the appliances have touched off the fumes of gasoline?

A. Yes. To put it technically, an electrolyte may have served as a source of ignition for the combustible fume and air mixture.

MR. BYRNE: Thank you, Mr. Bhatt. I have nothing further.

THE COURT: Thank you, counsel.

Mr. Cascarano?

CROSS-EXAMINATION

BY MR. CASCARANO:

Q. Mr. Bhatt, I just want to make sure I understand your role in this. You were contacted by somebody from the sheriff's office, presumably; right?

A. Yes.

Q. I'm sorry if I'm not making myself clear. The purpose of their contacting you was for you to attempt to determine how much liquid was placed on the first floor?

A. No, that is not accurate. Specifically, to the best of my knowledge, I was contacted by Mr. Robert Williams of ATF Division of the U.S. Treasury, I believe. And what * * *

* * *

[T.2193] SHARADCHANDRA NARBHESHANKER BHATT,

recalled as a witness on behalf of the State in rebuttal, having previously been duly sworn, was examined and testified further as follows:

DIRECT-EXAMINATION

BY MR. BYRNE:

Q. Mr. Bhatt, I have just one question for you. It involves the photographs that have been received here in evidence as

State's Exhibits 15 and 16. You will recall when you were here before that we discussed these briefly?

A. Yes, I do.

Q. And I believe I asked you the question at that time if these types of patterns in the floor were familiar to you.

A. Yes.

Q. And I asked, if you recall, if they could be caused by gasoline. Do you recall that?

A. Yes, I do.

Q. And your response was what?

A. Yes, as one possibility, yes.

Q. And are there any other possibilities?

A. Yes, there are.

Q. And what would they be?

A. The other possibilities are the burning of any type of combustible liquid, such as gasoline.

[T.2194] Q. Flammable liquid?

A. Yes.

MR. BYRNE: Thank you, sir. I have nothing further.

THE COURT: Mr. Cascarano?

CROSS-EXAMINATION

BY MR. CASCARANO:

Q. I apologize. I did not understand. You said the burning of any type of combustible liquid?

A. Yes.

Q. That doesn't have to be gasoline?

A. Correct.

MR. CASCARANO: Thank you, Mr. Bhatt.

(Witness excused.)

* * *

APPENDIX N

Transcript Excerpts of Richard Tontarski's Testimony

[T.547] Tontarski—Direct

A. Yes, I did.

Q. Can you tell us what is in that exhibit?

A. A-11 contains wood which is—which has come from the kitchen windowsill.

Q. And after making your—or did you examine it in the manner you described which is gas chromatography technique?

A. Yes, I did.

Q. Having completed that examination, were you able to reach a conclusion as to the presence of any accelerant?

A. Yes, I did.

Q. What was it?

A. This particular item, or in this particular item, I detected gasoline.

Q. Was there any question in your mind that it was gasoline that you detected?

A. No.

Q. I wonder if you will open item A-11, please.

Are the items that you examined in there, still?

A. Yes, they are.

MR. BYRNE: I wonder, Your Honor, if I might just hold the can myself and pass it before the jury for their viewing?

THE COURT: You may.

MR. CASCARANO: Can I see?

[T.548] MR. BYRNE: You certainly can.

MR. CASCARANO: Thank you.

BY MR. BYRNE:

Q. Mr. Tontarski, I am handing you what has been received in evidence here as State's Exhibit 21. Will you take

a look at that and tell us what that is and how you were able to identify it?

A. Again I am able to identify it based on the yellow tag that I have attached to the item as well as the identification evidence tape. The tape has a case number, exhibit number, date and initials. That is what was received as Item B-39 and also contains wood from the center of the entranceway is how it is labeled.

Q. Did you run the same tests on that sample?

A. Yes, I did.

Q. Were you able to draw a conclusion as to the presence of an accelerant?

A. Yes, I was.

Q. What was that?

A. I also detected gasoline in this item.

Q. Any doubt about that?

A. No.

Q. Would you open this container also, please.

The contents are those that you examined?

A. Yes, they are.

[T.549] Q. They appear to be in the form of wood, is that correct?

A. Yes, they are.

Q. And included in the couple cases, some tile pieces still attached?

A. Yes, that is correct.

Q. Is this item I have now drawn out representative of the others that are in there?

A. Yes, it is.

MR. BYRNE: May I show it to Counsel and jury?

THE COURT: You may.

BY MR. BYRNE:

Q. There are items like this in the container, isn't that so?

A. Yes, they are. That is correct.

Q. Next is State's Exhibit 20. Would you see if you can identify that, please?

A. Again, that is one of the items that we received in the initial submission of evidence. And again, it has my yellow label and evidence tape on it. This item was received as Item C-6. It contains wood which is labeled to have come from the second tread of the steps.

Q. On the ground level, if you know?

A. I don't specifically know.

Q. Did you conduct the same examination on that exhibit?

[T.550] A. Yes, I did.

Q. And were you able to reach a conclusion as to the presence of an accelerant?

A. This item also contained gasoline.

Q. Would you open that as well, please.

Are the contents that which you examined?

A. Yes, they are.

MR. BYRNE: May I show them to Counsel and the jury, Your Honor?

THE COURT: You may, Counsel.

BY MR. BYRNE:

Q. Next item would be A-10, as designated by the Sheriff's Office and received in evidence here as State's Exhibit 22. Can you identify that, please?

A. Yes. A-10 was also received in the original submission of items. Again it has the identification tape and my labeling tape. This items contains green carpeting from the living room floor.

Q. Did you run the same analysis of that sample?

A. Yes, I did.

Q. Were you able to reach a conclusion as to the presence of an accelerant?

A. Yes, I did.

Q. What was that conclusion?

A. Gasoline was detected in that item as well.

[T.551] Q. Would that have been—Let's open it for a moment.

As already been shown to the jury and examined by Counsel, there are two items: One appears to be a carpet; is that correct?

A. That's correct.

Q. And under that, what appears to be some wood?

A. Yes. Some piece of wood, yes.

Q. Do you know in which of the items—or whether you found the accelerant in both items?

A. No. Once the evidence is in this container, such as this, there is no way to essentially separate the items for examination through diffusion, and simply being in the close proximity with one item next to the other. Anything that might be well on one, they will get transferred to the other and vice versa.

Q. Next as received here in evidence as State's Exhibit 24, I wonder if you could take a look at that and tell us if you recognize it?

A. Yes. This item was received by me as Exhibit B-37. This item contains wood from the northeast bedroom floor.

Q. And did you run the same test on that?

A. Yes, I did.

Q. With what result?

A. This item also contained gasoline.

APPENDIX O

Transcript Excerpts of Testimony Pertaining to Gasoline Odor

[T.141] Stanley Owens—Direct

* * * start those fires?

A. Yes, sir.

Q. Often?

A. All the time.

Q. And have some of those drills been conducted in abandoned or otherwise homes, structures, dwellings to be destroyed?

A. Yes. That's our primary source of drill when setting the fires is in those types of structures.

Q. How many fires do you suppose you staged in dwellings as a volunteer fireman in which you used gasoline in starting a fire and then put it out?

A. Well, as I stated earlier, we use gasoline primarily on all of them to start the fire. And I would say probably 45 to 50 burns, because we get three or four out of every house that we have.

Q. And in conducting those drills and after the fire is extinguished, have you ever been able to detect just with your nostrils, without any sophisticated equipment, the odor of gasoline from those fires?

A. Not really, no.

Q. What are the common or dominant odors in such fires?

A. Well, mostly just the predominant would be the material that we have been burning: straw, old furniture that is given to us or whatever.

[T.142] Q. But not gasoline?

A. But not gasoline, no.

MR. BYRNE: Thank you, Mr. Owens.

THE COURT: Thank you, counsel.

Mr. Cascarano, you may inquire.

CROSS-EXAMINATION

BY MR. CASCARANO:

Q. Mr. Owens, when you came on the scene of the townhouse, you indicated most all of the windows had flames coming out; is that correct?

A. Yes.

Q. Now, this diagram that we have, or this model that we have, of the house here, you recognize this as being the north part of the four townhouses there?

A. Yes.

Q. It is true, is it not, that when you came on the scene, there were no flames coming from—

THE COURT: Mr. Cascarano, can I interrupt? I just want to be sure that the jury can see. You can use the pointer here too.

MR. CASCARANO: Maybe I can stand behind. It that better?

Q. (By Mr. Cascarano) It is true, is it not, Mr. Owens, that when you came on the scene, there were no flames coming out of this top front window; that is true, is * * *

* * *

[T.156] Gary Giving—Direct

THE COURT: Sustained.

One or two foundational questions, Mr. Byrne.

Q. (By Mr. Byrne) During all your time as a fireman, including when you were being trained, have you participated in drills involving fires started with gasoline?

A. Yes, I have.

Q. How many, would you estimate?

A. A dozen.

Q. Were you present when gasoline was applied?

A. Yes, sir.

Q. Did you see the gasoline cans or did you see the gasoline itself?

A. I seen the cans. I have seen the gasoline applied.

Q. Then my question is: In those dozen fires started by gasoline, after the fires were put out, were you ever able to detect the odor of gasoline?

A. No.

Q. What is the dominant odor?

A. Heat, burnt smoke smell.

MR. BYRNE: Thank you, Mr. Giving. I have nothing further.

THE COURT: Thank you, counsel.

Mr. Cascarano, you may inquire.

CROSS-EXAMINATION

* * *

[T.165] Gary Giving—Redirect

* * * correct me if I'm wrong—that you said that at the fire scene, the idea of gasoline did not enter your mind; is that correct?

A. That's correct.

Q. But sometime later did the use of gasoline enter your mind?

A. I would say yes, after the fire.

Q. After the fire?

A. Was extinguished. Something was weird.

Q. Have you ever been in a fire situation where in fact you did smell gasoline when the fire was still burning other than possibly at your drills?

A. No, sir.

Q. How about at the drills?

A. Repeat what you said.

Q. Do you recall ever smelling gasoline at the scene of a fire when you knew gasoline was there because it was used to start the fire during your drills?

A. Before?

Q. At any time.

A. Yes.

Q. When?

A. At our drills.

Q. Before the fire, during the fire or after the fire?

A. Before.

* * *

[T.173] Ronald Boman—Direct

* * * gasoline?

A. Yes, we do.

Q. How many of those drills have you participated in or observed or directed as training officer or chief?

A. I would probably have to say ten to 15.

Q. In those fires that you knew were started by gasoline, was the odor of gasoline detectable during or after the fire was put out?

A. No, it wasn't. After we entered the building after we put the fire out, there was no detectable odor of gasoline in the building.

Q. Let me direct your attention for a moment, Mr. Boman, to what has been received here as State's Exhibit 3. I would ask you if you have had a chance to examine that at any length to determine what it is.

A. Yes, I have. It is a duplicate of the building that the fire was in.

Q. And the one portion of it contains furniture; is that correct?

A. That's correct.

Q. And another portion of State's Exhibit 3, a model, is empty. Do you know what that section of that exhibit is?

A. That would be the adjoining townhouse complex that would be adjoining the burned building.

* * *

[T.1610] Shelby Gallien—Cross

* * * gasoline, put them out, started another fire, put it out; started other fires, put them out, in the same house; they did this numerous times, and said it was common that they did not smell gasoline after getting in there and putting out the fire. Would you disagree with them?

A. I would have to know the individual. If I walk into that fire—

Q. If there was more than one individual?

A. If there was more than one individual. Your nose may get acclimated to that gasoline odor, and you are immune from smelling it.

Q. Well, something else can happen too, can't it? If there is any sign of gasoline left, it will be clouded over by other scents of the fire; isn't that so?

A. Possibly other scents may overrule it, a stronger odor of something.

Q. Isn't it also so that one of those odors being smoke, which would have that impact?

A. Smoke has a strong odor, and it may override any other odor that you have.

Q. There's a lot of steam around when you first go into a place like that?

A. There is possibly a given amount of steam from the water in contact with the fire, that is correct.

* * *

APPENDIX P

Transcript Excerpts of Fire Marshal Bruce Ryden's Testimony

[T.2110] Ryden—Direct

MR. CASCARANO: I am going to object to any testimony except in regard to flashback. I don't need to state.

THE COURT: Sustained.

BY MR. BYRNE:

Q. Do you know what the term "flashback fire" is?

A. I am not familiar with it. It hasn't been used until I heard Mr. Gallien talk about it the other day.

Q. You know he used the term to describe a certain kind of fire?

A. Yes, sir.

Q. Are you familiar with that kind of fire?

A. Yes, sir.

Q. What do you call it?

A. A backdraft.

Q. Could you explain the characteristics of that kind of a fire, please?

A. Backdraft is one where the room—take in this case, a living room or a kitchen area that is enclosed, with windows closed. The smoke builds up at the ceiling level and the oxygen level will drop down to a point where it will either go out or unless it receives a new source of oxygen. It is a great problem for the firefighters because of the fact when this type of condition exists, when they open up the door [T.2111] and bring in a line or hose, oxygen is now readmitted to the fire and it will cause a backdraft or a smoke explosion.

But it does have to be in a confined room.

Q. Like what?

A. All windows and doors closed. No communication to free oxygen.

Q. And why is that so?

A. Because you can't get that much heat buildup in there and get a concentration of products in the room.

Q. You say when the firemen open the door and oxygen would go in, what would happen?

A. You would have a very violent explosion.

Q. Would there be an open flame before that oxygen is introduced?

A. Probably not. There probably would be some glowing embers, but not open flame, no. You cannot have an open flame and have a backdraft.

Q. The flame would start when there is new oxygen, is that what you are saying?

A. That's correct.

Q. How instantaneous would that flame spread through the enclosed area?

A. Immediately.

Q. Would there be an isolated fire in a section of the [T.2112] room existing for any significant time at all?

A. No, sir.

Q. Would that enclosed room have a heavy concentration of smoke before the introduction of new oxygen which causes the flash fire?

A. Very definitely.

Q. And smoke is lethal if you inhale it?

MR. CASCARANO: Objection, leading.

THE COURT: Sustained.

BY MR. BYRNE:

Q. Is it lethal?

A. Yes, sir. The basic component is carbon monoxide and carbon monoxide is a known toxic gas.

Q. If someone were in the enclosed townhouse, first floor, in approximately—maybe a precise cubic footage of 5,888—

and there was enough accumulation of gases to cause a flash-draft fire, would you expect somebody in the building, when that fire started, to survive the smoke?

A. No, sir.

Q. Have you investigated fires of a smoldering nature with some frequency?

A. Yes, sir.

Q. Is there any rule of thumb that one might expect as to the survival rate of any sleeping occupant in such [T.2113] a fire?

A. Well, in order to have the decreased burning level, the oxygen level within the room would have to decrease below the normal—in this room, approximately 21 percent oxygen. Fire requires approximately the same percentage of oxygen as do human beings. As the oxygen level was consumed within that room, it is going to drop from 21 percent down to 15, to 10. And, as it drops below 15 percent open flame and combustion ceases. As it drops down to 10 percent oxygen level, the amount of carbon monoxide that has built up in the room and also in the occupant of that room, causes a great deal of disorientation.

As the oxygen level further drops due to smoldering combustion, once it gets down to approximately 6 percent, all combustion will cease and all life will cease. But once it drops below 10 percent, the mortality rate is extremely high.

MR. CASCARANO: What was that last rate, 10?

THE WITNESS: 10 percent, yes.

BY MR. BYRNE:

Q. In your work as a Fire Marshal, have you experience, personal experience with gasoline fires?

A. Yes, sir.

Q. You train Roseville Firemen in connection with your

* * *